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# ***A handlist of films showing printing & typesetting***

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Each entry in the handlist gives the title, date and running time of the film, states if it is black and white or silent, gives the format, and places where the film can be found. All entries have a brief overview of the content of the film and for longer films a sequential summary is also provided. The films in the handlist are organised into categories following the system used for books at the St Bride Library. The index lists all the relevant films under each heading and more specific searching can be done using a keyword search of the pdf.

I am extremely grateful to all those who gave films to the project, particularly Michael Passmore, who donated several films and to Carl Schlesinger, who provided copies of the many films in his own collection. Special thanks to Terry Belanger and his team at Rare Book School for allowing me to view the 'Doc' Robert Leslie Collection and to Nigel Roche and the staff of the St Bride Library for their assistance in organising the films into categories.

If anyone can add to, or correct, the information listed, or knows of other films that should be included please let me know: Rob Banham: [r.e.banham@reading.ac.uk](mailto:r.e.banham@reading.ac.uk) | 0118 378 6399.

# ***Printing generally***

## **A History of printing**

A1 General history of printing

A2 Local history of printing

## **C Structure of the book trades**

C2 Trade unions

C3 Social structure of the book trades

C4 Printing education

C5 Printing management

## A1 General history of printing

### A1.1 *The day the universe changed: printing transforms knowledge* (1985)

53 minutes, DVD

Producer: John Lynch

University of Reading

#### Overview

BBC documentary, written and presented by James Burke, about the changes brought by the invention of printing from moveable metal type. The first part focuses on how society functioned before the invention of printing at a time when the vast majority of people were illiterate. The second part looks at Gutenberg's invention and the spread of printing. It briefly covers punchcutting, striking a matrix and handcasting type and shows printing on a common press but the interest lies very much in the discussion of how printing changed the world rather than in explaining how it worked. The only film in this list to show the assembly of a travelling press, albeit without any accompanying explanation of what is happening.

#### Summary

Part 1 – Introduction discusses the use of technology in modern society and how society functioned before the printed word.

- 15:21 Book production before printing
  - scribes at work
  - discussion of the limited value of manuscripts
  - importance of invention of paper
  - increased demand for writing
- 26:00 Part 2 – Gutenberg and the invention of printing
- 29:33 Punchcutting, striking a matrix, and handcasting
- 31:07 Inking with ink balls and printing on a common press
- 32:28 Assembling a travelling press
- 35:17 Martin Luther and the use of printing as a mass medium
- 39:26 The printing house (shot in the Plantin-Moretus Museum)
- 41:02 The spread of printing
- 43:00 A woodblock illustrator at work and discussion of the importance of illustration
- 48:30 Indexing

### A1.2 *National Print Museum* (1997)

18 minutes, VHS

Director: Brendan Redmond

Producer: Tom Curran and Brendan Redmond

University of Reading

#### Overview

Film made by the National Print Museum, Dublin showing handcasting and hand composition, Intertype, Monotype and printing on various different kinds of printing press. The section on the Monotype is particularly good and it is one of only two films in

this list to show a pen-ruling machine in operation (the other is L8.1). Narrated by Brian Munn.

#### Summary

A brief history of the National Print Museum.

- 2:31 Handcasting type
- 3:55 Hand composition
- 4:25 The Intertype machine
  - keyboarding
  - matrices falling into place
  - a line being cast, slug coming from the machine
  - matrices returning to the magazine
- 6:01 The Monotype machine
  - fitting keyboards to the machine
  - brief demonstration of how the keyboard works
  - explanation of how the casting machine works and shots of the caster in action
- 10:20 Locking up a forme and proofing on an Columbian Press (which is incorrectly called a proofing press and said to have been invented in 1830)
- 12:28 Printing on a Wharfedale flatbed cylinder press
- 13:10 Demonstration of a John Shaw pen-ruling machine
  - charging the pens with ink
  - feeding sheets of paper into the machine
- 16:15 Printing on a Heidsieck treadle press

### A1.3 *Communications: the printed word* (1973)

14 minutes, VHS

Producer: Richard J. Soltys

RBS v4.11 | University of Reading

#### Overview

The history of communications with the printed word from the beginning of papermaking. Virtually the entire film (except the last minute) is made of slides from the Kimberley Clarke Corporation 'Graphic communications through the ages' series of oil paintings supplemented with others from the Paine Art Museum and the LA County Art Museum. The narration contains a number of inaccurate statements and because it covers such a long period in such a short space of time the film lacks depth. This and the lack of moving images means that the film is of limited value.

#### Summary

- papyrus
- the roman alphabet
- Charlemagne
- the Diamond Sutra and printing in China
- papermaking in Europe
- Gutenberg – the common press
- Nicolas Janson
- Aldus Manutius
- Geoffrey Tory
- Benjamin Franklin
- Alois Senefelder – the pole press
- William Blake
- Papermaking machines
- Koenig's steam-powered flat bed cylinder press
- stereotyping
- the Franklin Press (George Phineas Gordon)
- photo-engraving
- the Linotype

- William Morris
- the Monotype
- Ira Reubel and the offset lithographic press
- Frederick Goudy
- contemporary printing – this is the only moving film, approximately 1 minute long showing presses, keyboards, and data storage

### A1.4 *Printing through the ages* (1950)

14 minutes, b&w

Producer: Encyclopedia Britannica Films

LC: FBA 1295

#### Overview

Adapted from *The story of printing* (not listed). A quick overview of the history of printing from use of seals to the common press through to web-fed rotary presses.

#### Summary

Early printing

- potato printing
- seals pressed into clay or wax
- printing with a seal
- early prints
- printing a repeat pattern on cloth
- printing by burnishing (playing cards)
- printing with a press (adapted wine press)
- cutting text in wood
- Gutenberg's workshop (printing on a common press)

Handmade type

- punchcutting
- striking a matrix
- casting type
- early printing types

Hand presses

- iron platen presses
- mechanical rollers

The rotary press

- the flat-bed cylinder press
- diagram of a flat-bed cylinder press
- planing a large forme of type for a newspaper
- tissue and blotting paper placed over forme and beaten to make flong
- paper matrix (flong) fit into a cylindrical caster
- rotary plate mounted around the drum of a press
- diagram of a rotary press
- the continuous papermaking machine
- diagram of a rotary press printing both sides of the paper
- a rotary press in operation

Hot metal

- a Monotype keyboard and type coming off the caster (not very well explained – far too brief and implies a single machine rather than separate keyboard and caster)
- the Linotype machine
- collating machine
- large web-fed rotary presses

### A1.5 *Miscellaneous TV clips* (c.1989)

6 minutes, VHS

University of Reading

#### Overview

Four short clips originally shown on US television. The first shows a press printing and finishing Bell telephone books, the second the shift from hot metal to cold type at the *Cincinnati Post* and the final two the anniversary of the introduction of 25 cent paperbacks to the US by Robert de Graf in 1939.

### A1.6 *What did Gutenberg invent?* (2001)

30 minutes, VHS

Producer and Director: Ollie Tait

University of Reading

#### Overview

BBC documentary looking at research by Paul Needham and Blaise Agüera y Arcas into how Gutenberg may have made his printing types. They claim that photographic analysis of Gutenberg's type cannot have been produced uses punches and matrices because different instances of the same character are not identical. An intriguing theory but the documentary doesn't come up with any answers – and no other printer's work was tested in the same way. Includes brief shots of casting type by hand and printing on a common press.

#### Summary

Introduction discusses book production before the invention of printing, the Gutenberg bible, and the spread of printing.

- 7:11 Brief description of the typemaking process showing handcasting
- 11:23 Questioning Gutenberg and early book production
- 16:42 Photographing letters to see which come from the same masters. Questioning the use of matrices for casting type
- 19:24 Printing on a common press
- 20:05 How Gutenberg might have made his type? Discussions between Needham, Blaise, and Stan Nelson

## A2 Local history of printing

### A2.1 *News in a nutshell* (16/07/1936)

3 minutes, b&w, wmv

887\_19.wmv

[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Includes a story about a fire at a printing works in Farringdon Street.

**A2.2 Nuns at work** (09/09/1965)

4 minutes, wmv  
335\_04.wmv

**Overview**

Nuns at work at Ladywell Convent at Godalming.  
Includes a brief look at their printing plant.

**A2.3 Messrs Hazell Watson Viney Ltd, printing works**

2 minutes, b&w, mute, 35mm  
British Film Institute

**Overview**

Shots of the interior and exterior of Hazell, Watson & Viney's printing works. Shows a forme being locked up and printing on a sheet-fed letterpress machine and all the employees leaving the factory at 1 pm.

**A2.4 Life on board liner** (1939)

4 minutes, b&w, 35mm  
British Film Institute

**Overview**

Shows the printing works on board a liner with Linotype machines and sheet-fed letterpress printing machines (treadle and flat-bed cylinder).

**A2.5 Christopher Plantin: polyglot printer of Antwerp** (1988)

25 minutes, VHS  
Producer: Nick Levinson  
University of Reading

**Overview**

Excellent documentary on Christopher Plantin made by The Open University and presented by Rosemary O'Day and Noel Coley. It concentrates on what Plantin printed and his career and contribution to printing but includes a short section on how Plantin would have printed using a common press, and casting and composing type by hand. Shot at the Plantin-Moretus Museum.

**Summary**

The Plantin-Moretus Museum

- 2:16 Plantin's early career
- 5:25 Plantin under suspicion of heresy
- 7:30 Plantin at the height of his success
- 9:00 Plantin's use of copper-plate and wood-engraved illustrations
- 11:36 The Polyglot bible
  - printing on a common press, inking with an ink ball and using the tympan and frisket
  - hand composition
  - explanation of how type was made
  - handcasting
  - layout of the Polyglot bible
  - proof reading
- 21:00 Plantin as proto-typographer to the Spanish King and as printer to the States General

**A2.6 News in a nutshell** (22/04/1937)

4 minutes, b&w, wmv  
917\_13.wmv  
www.britishpathe.com

**Overview**

Includes a story about the Duke of Kent's visit to Odhams printing works in Watford where they are printing the official Coronation programme.

**A2.7 Cardinal Griffin in Poland** (nd)

1 minute, b&w, mute, wmv  
2401\_17.wmv  
www.britishpathe.com

**Overview**

Cardinal Griffin, Archbishop of Westminster, visiting the printing-house of the Franciscan Cloister, Poland, with Polish Primate, Cardinal Hlond. Shows a few seconds of printing on a rotary press.

**A2.8 New Polish printing press** (c.1950)

2 minutes, b&w, wmv  
2308\_07.wmv  
www.britishpathe.com

**Overview**

President Bierut of Poland inaugurates a new rotary printing press.

**A2.9 Prince George** (24/02/1930)

1 minute, b&w, mute, wmv  
818\_07.wmv  
www.britishpathe.com

**Overview**

Prince George visits the British Industries Fair where there is a printing press on display

**A2.10 Shop talk: modern times come to a New York printing plant** (1981)

90 minutes, 35mm  
Director and Producer: Robert K. Machover and Catherine Pozzo di Borgo  
LC: FDA 8457-8458

**Overview**

Documentary about workers at Sandy-Alexander offset lithographic printing works in New York. After the former family firm had been sold the unpopular new management led to the workers deciding to join the union: Amalgamated Lithographers of America. Workers are interviewed and shown discussing the pros and cons of unionism and what the future holds. Occasional shots of plate preparation or printing and visits several different print-related locations (Barnes Press, NYC; NPES/Print shows; Romay Printers; M.R. Litho Corp; Sunrise Plate Service; Alba Press).

**Summary**

Workers from Sandy Alexander being sworn in as members of the Amalgamated Lithographers of America in 1979 followed by shots of pasting up and exposing film, fitting a plate onto the press and inking up.

1. 'Punching the clock' – interview with stripper Howard 'Howie' Swerdup
2. 'Living with the clock' – interviews with other workers
3. 'A boss is a boss' – interviews with other workers
4. 'Howie learns first hand about collective negotiating'
  - shots of stripping
5. 'Making ends meet'
6. 'They won't be printers anymore'
  - a print workshop – shots of treadle press and a contemporary offset cylinder press
  - a visit to PRINT 80, America's international graphic arts exposition – looking at new presses that don't require atripping
7. 'The aftermath'

## A2.11 *Hand composition at R.R. Donnelley & Sons Co., Chicago* (1945)

11 minutes, b&w, mute, VHS

Producer: The Lakeside Press /

R.R. Donnelley & Sons

RBS v6.26 | The University of Reading

**Overview**

R.R. Donnelley & Sons video showing the correct procedures for hand setting display type. A good example of contemporary working practice.

**Summary**

- setting a line of display type
- spacing a line of display type
- mortising characters for better fit
- cutting leads and slugs
- setting straight matter with initials
- tying up and proofing

## A2.12 *The Oxford University Press and the making of a book* (c.1925)

27 minutes, b&w, mute, VHS

Director: Percy Nash

Producer: Federation of British Industries

University of Reading | OUP

**Overview**

The first part of the film uses slides to illustrate a brief history of printing in Oxford and of Oxford University Press. This is followed by an account of contemporary (c.1925) printing at OUP covering hand casting and composition, Monotype composition and casting, making stereotype plates and the printing and binding of various books. Good footage of hand casting and of casting a flat stereotype plate. Ends rather abruptly.

**Summary**

History of the press/printing in Oxford

- the first and last pages of the first book printed in Oxford
- Robert Dudley, Earl of Leicester, founder of the press in 1585
- Archbishop Laud who secured the University a license to print books in 1632
- the Charter of Charles I entitling the University to print 'all manner of books'
- the Sheldonian Theatre where the University began to print in 1669
- Edward Hyde, Earl of Clarendon, and the title page of his History of the rebellion
- the Clarendon Building, built using the profits of Clarendon's History of the rebellion
- the Vice-Chancellor entering the Clarendon Building
- the entrance to the Bodleian Library and Bodley's Librarian
- the Clarendon Press of the present day

### 6:45 Type casting and composition

- punches and matrices from which type is cast (the Fell types)
- hand casting type
- a diagrammatic explanation of type casting by hand
- compositors at work
- setting up a Syriac dictionary
- Monotype composing machines (OUP's Monotype composing room)
- Monotype casting – transferring the perforated roll to the casting machine and lines of type coming from the machine
- making stereotype moulds
- casting a stereotype plate – good footage of a plate being cast in a Harrild & Sons casting box

### 13:45 Printing books

- printing the Oxford Geographies from plates, 64 pp at a time – large sheet-fed presses in operation
- printing the Book of Common Prayer, 256 pp at a time – large sheet-fed presses in operation
- printing the New Testament on Oxford India paper, 512,00 pages/hour – large sheet-fed presses in operation
- printing the Oxford English Dictionary on a 70-year-old machine at a speed of 1750 pages/hour on a flat-bed cylinder press with two beds

### 16:20 Binding books

- a general view of the bindery (girl's section)
- a general view of the bindery (men's section)
- folding sections by hand
- folding by machine
- gathering the sections
- sewing machines at work, sewing the *Big Book for Baby*
- guillotining the three edges
- gilding and burnishing the edges
- rounding the back
- cutting the boards and the cloth
- boards and cloth brought together to make the cover
- laying on leaf for gold lettering
- stamping the title on the gold leaf in a hot press
- casing-in
- examples of finished OUP publications

**A2.13** *Journeys of the Lapwai Mission Press* (1995)

54 minutes, VHS

Producer: Idaho Center for the Book, Boise State  
University

RBS v6.22

**Overview**

Most of the film is a speech given by Wilfred P. Schoenberg about the history of the Lapwai Mission Press (a Ramage no. 14, the oldest press in the American West). Schoenberg describes the press's journey from Boston to Honolulu in 1827 where it remained in operation until 1839. It was then moved to Lapwai (Idaho) until 1846/47 where the Lapwai Mission Press produced books for speakers of previously unwritten languages (Spokan and Nez-Percés). It was then sent back down the Columbia and kept safe for 150 years. No printing is shown and only a few very brief shots of the press itself (or rather what's left of it).



## C2 Trade unions

### C2.1 *Each for all* (1946)

12 minutes, b&w, 35mm

Director: Montgomery Tully

British Film Institute

#### Overview

A film about the trade unions narrated by a printing trade union rep. Includes shots of newspaper printing on a rotary press, Linotype keyboarding and casting, planing formes of type.

## C3 Social structure of the book trades

### C3.1 *A bounty unpurchasable* (nd)

29 minutes, VHS

Director: James Bates

Producer: Union Printers' Home

University of Reading

#### Overview

The story of John Printer's stay at the Union Printers' Home which, since opening in 1892 century has cared for almost 9000 sick and old members of the International Typographic Union. The film looks at the various buildings at the home and the provision offered to its patients/residents. No printing or typesetting is shown. Narrated by Wes Bradley. See also C3.2.

### C3.2 *Let not your heart be troubled* (nd)

29 minutes, VHS

Director and Producer: ITU training center

University of Reading

#### Overview

Shows the various care services provided at the Union Printer's Home for sick/old members of the International Typographic Union. No printing or typesetting is shown. See also C3.1.

## C4 Technical education

### C4.1 *Indian 'handymen'* (09/03/1942)

2 minutes, b&w, wmv

1320\_03.wmv

www.britishpathe.com

#### Overview

The training of Indian troops – jobs learned include signwriting, typesetting and printing.

### C4.2 *Soldiers' home* (24/05/1943)

2 minutes, b&w, wmv

1562\_14.wmv

www.britishpathe.com

#### Overview

Printing and typesetting are among the trades being taught to recovering soldiers: includes a few seconds showing printing on a treadle press and typesetting

### C4.3 *Printing a job on a platen press* (1955)

11 minutes, b&w, 35mm

Producer: Baily Films Inc.

LC: FAA 4493

#### Overview

Training video for apprentices which provides an in depth demonstration of setting up and printing on an electric treadle press

#### Summary

Preparing the press

- inking the press
- starting the press by rolling the fly-wheel forward and turning on the switch
- turning off and stopping the press with the rollers down
- putting a forme into the press
- moving the grippers out to the sides
- raising the bales and removing old packaging
- creasing and fixing the first packing sheet (draw sheet)
- printing on the draw sheet
- adding guidelines to show where the paper should go
- putting guides (points) in
- Taking proofs and making adjustments
- printing the first proof
- adding packing and adjusting the guides
- more proofing and minor adjustments
- final proof taken to instructor for approval
- sealing the guides with wax
- securing the guides
- gripper moved over margin

## C5 Management

### C5.1 *The information industry: can you manage it?*

17 minutes, VHS

University of Reading

#### Overview

Promotional film for the British Printing Industries Federation. Comedians Rik Mayall and Dawn French present management career opportunities in the printing industry. One brief shot of a web-fed rotary press.

# ***Literary industries***

## **D Literacy**

D2 History of reference works

D3 Law and freedom of the press

## **E Booktrade**

E1 Booktrade history

## **F Journalism**

F2 Local history of newspapers

F4 News agencies

F5 Reporting technique

F6 Newspaper & magazine design

## D2 History of works of reference

### D2.1 *Off the track* (aka *On the record*)

(17/04/1944)

4 minutes, b&w, wmv

1574.25.wmv

www.britishpathe.com

#### Overview

Preparation and printing of the Hansard report by His Majesty's Stationery Office. Shows a Linotype operator at work, printing galley proofs, type being made up into pages, letterpress printing on a sheet-fed flat-bed cylinder press, and various finishing operations.

### D2.2 *Chambers Encyclopedia* (1970s)

2 minutes, mute, wmv

3273\_05.wmv

www.britishpathe.com

#### Overview

Includes footage of the encyclopedia being printed in colour on a flat-bed cylinder letterpress machine, one colour at a time.

### D2.3 *Craftsmanship and automation combine to produce the World Book Encyclopedia* (nd)

23 minutes, VHS

Producer: The Lakeside Press /

R.R. Donnelley & Sons

University of Reading

#### Overview

Production of the *World Book Encyclopedia*: typesetting and casting on Monotype machines, making stereotype plates, letterpress printing, and finishing and binding. A later film on the same subject features offset lithographic printing rather than letterpress (see also D2.4)

#### Summary

- preparation of paste up
- the Monotype caster
- galley proofs
- locking up formes
- making curved plates for printing 64pp (the whole Encyclopedia requires 14,000 plates)
- fixing the plates to a large 4-colour press
- press running
- adjustments to make ready
- finishing machine producing 32pp sections
- gathering machine
- trimming machine
- machine sewing
- rounding and backing machine (rounding; gluing; lining; headbands)
- case-making machine
- cover decorating machine
- casing-in machine

### D2.4 *World Book Encyclopedia* (nd)

25 minutes, VHS

Producer: Field Enterprises Educational Corporation / R.R. Donnelley & Sons

University of Reading

#### Overview

Production of the *World Book Encyclopedia*: typesetting and casting on Monotype machines, plate making, printing on web-fed offset lithographic presses, and finishing and binding. Includes a good explanation of using photography to make plates for offset printing. An earlier film on the same subject features letterpress production and a more detailed section on binding (see D2.3)

#### Summary

- Monotype keyboarder and casting machine at work
- type printed onto plastic plates which are used to make offset plates
- discussion of colour separation and halftones
- hand adjustments to negatives
- checking colour plates on a proofing press
- using a densometer to test colours
- star targets
- film rephotographed
- pasting up film into 32pp sections

#### Platemaking

- sensitising the plate
- exposing the plate
- developing the plate
- coating the plate with copper
- washing the plate in a warm bath to remove the copper from non-printing areas
- touching up of plate by hand

#### Machine binding

- gathering machine
- sewing
- rounding backs
- gluing the spine
- headbands and liners
- cases

### D2.5 *The Manhattan Alphabetical Directory* (nd)

22 minutes, b&w, silent, VHS

University of Reading

#### Overview

Production of the Manhattan telephone directory by letterpress. Shows production of the daily addendum on a Kelly flat-bed cylinder press and of the complete directory on a R. Hoe & Co rotary press. The only film in this list that shows type being locked up in a specially designed 'page frame' with integral quoins rather than the usual chase and to feature a stereotype proofing press for printing proofs from curved plates.

#### Summary

- service slips with new names and numbers are sent to the printer
- composition on a Linotype machine with an explanation of how the machine works
- proofing press
- setting up the forme

- the 4pp daily addendum being printed on a Kelly letterpress machine
- folding machine
- Seybold guillotining machine
- making stereotype moulds
- casting plates
- preparing plates for press
- stereotype proofing press
- stereotype strengthened by depositing iron on the face
- plates imposed on cylinders which take 72pp at each end
- R. Hoe & Co rotary press printing two 72pp signatures at 14,000 impressions/hour
- signatures coming off the press

Machine binding

- gathering machine
- guillotining (for perfect binding)
- gluing and adding 'scrim'
- casing-in
- guillotining

## D3 Law & freedom of the press

### D3.1 *The colonial printer* (1952)

25 minutes, VHS

Director: Ross Patton

Producer: Arthur L. Smith

RBS v4.10 | University of Reading | LC

#### Overview

Story of hapless apprentice Peter working in Alexander Purdy's print shop in Williamsburg, Virginia, in 1775. Peter redeems himself by discovering the Governor's militia raiding the arsenal and providing a scoop for Purdy's newspaper *The Virginia Gazette*. Only the first few minutes shows printing but what is shown seems reasonably accurate. Narrated by William Rodgers and written by Howard Turner.

#### Summary

- preparing paper for printing (wetting and pressing)
- handsetting type
- locking up the forme
- inking with ink balls
- printing on a common press

## F2 Local history of newspapers

### F2.1 *King's English* (1931)

18 minutes, b&w, wmv

Director: Mary Field

1873\_02.wmv (8 minutes) and 1873\_03.wmv (10 minutes)

[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Film about accents and the standardisation of spoken English. Shows footage of newspaper printing taken from F2.20.

#### Summary

Reel 1 (1873\_02.wmv)

- examples of different accents
- discussion of the standardisation of spoken English
- a story arriving in the news room and being typed up (New world speed record attempt)
- reading out cricket scores on the radio followed by the news of the world speed record attempt
- reporter phoning in the story 'Bluebird beats world record – Malcolm Campbell does it again'
- cable sent to London and finds its way to the desk of a sub-editor 'have a banner headline Bluebird beats world record across seven columns in Caslon type 762 and the rest across two columns in Bon-doni (sic) type' – cable copy marked up
- marked up copy sent to a Linotype operator

7:59 Reel 2 (1873\_03.wmv)

- a new roll of paper being delivered to the press
- a curved stereotype plate being fitted to the press
- rotary press running
- finished newspapers being loaded onto a train
- people in Scotland, Wales, Plymouth, Ipswich, and Sheffield reading out the story in stereotypical accents

### F2.2 *Journalism* (1940)

10 minutes, b&w, mpeg

Producer: Whitton-Appleton

Journali1940.mpeg

[www.archive.org](http://www.archive.org) | University of Reading

#### Overview

Film showing the work of journalists which includes a few brief shots of printing and typesetting.

#### Summary

- shot of printing on a rotary press

3:34 Operating Linotype machines

- making up a forme

7:34 Mimeographing copies

- pouring molten type metal into a casting box to cast a plate
- printing on a sheet-fed cylinder machine
- putting a forme of type into a treadle press and printing it

### F2.3 *National press strike ends* (25/04/1955)

3 minutes, b&w, wmv

519\_21.wmv

[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Shots of fleet street and a brief glimpse of a large Hoe press. Chip shop asking people to bring their own newspaper. Linotype machines and large web-fed rotary presses.

### F2.4 *Time to remember – the time when little happened* (4 reels) (1921)

26 minutes, b&w, wmv

Producer: Peter Bayliss

615\_01.wmv, 615\_02.wmv, 615\_03.wmv, 615\_04.wmv

[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Short film for ABC television. Roland Culver's recollections of how 'a somewhat inexperienced pal of mine got the break of his life – a job on a great national newspaper' Reel 3 (615\_03.wmv shows glimpses (approximately 10 seconds each) of a large composing room (1:30) and two web-fed rotary presses (6:29).

### F2.5 *Long live the King and Queen: the local Coronation film review* (1937)

7 minutes, b&w

British Film Institute

#### Overview

A country view of the Coronation celebrations, presented by Union Cinemas in conjunction with *East Anglian Daily Times*. Around five minutes in there is footage of a Linotype operator at work, locking up slugs in a chase, and printing newspapers on a rotary press.

### F2.6 *Daily news for British navy* (1947)

2 minutes, b&w

2084\_11.wmv

[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Production of the *Pacific Post* by the British Navy. Shows men working at Linotype machines, galleys of type, a forme of type being planed, a curved stereotype plate being removed from casting box and fitted onto the press, and a rotary press running.

**F2.7 *Ingot pictorial no. 27* (1956)**

7 minutes, VHS and 35mm

Producer: Geoff Busby

British Film Institute

**Overview**

Short news story 'Newspaper's century' celebrating the 100th edition of *Ingot News* printed at the Argus Press, Fleet Street.

**Summary**

- copy being set and cast on a Linotype machine
- galley proofs
- page proofs
- making a stereotype flong
- flong curved and put into a casting box
- curved stereotype plate being fitted to the cylinder of a press
- press being started up
- various shots of the press running
- old issues of *Ingot News*

**F2.8 *How the Daily Mail is produced* (1930)**

7 minutes, b&w, mute, 35mm

British Film Institute

**Overview**

Short film showing newspaper production at the *Daily Mail*

**Summary**

- a battery of Linotype machines
- photographs put onto zinc plates
- the composing room, taking type from galleys and composing and proofing a page
- making a stereotype mould
- fitting the mould into a casting box and taking out the cast plate
- fixing the plates into position on the press
- rotary presses running
- finished newspapers coming off the press

**F2.9 *A newspaper story* (1940s)**

14 minutes, b&w, mute, wmv

Producer: British Instructional Films Ltd

1641\_03.wmv

[www.britishpathe.com](http://www.britishpathe.com)

**Overview**

Following a news story at *The Times* from the story being telephoned in to printed papers being taken away for delivery. There is also a shorter version of this film 1645\_03.wmv.

- the Linotype operator at work
- slugs of type being put into a galley
- galley proofs being printed in a proofing press
- type being locked up and planed in a forme
- stereotype flong being made
- flong being curved and put into a casting box
- curved stereotype plate being taken out of the casting box and fitted onto the cylinder of the press
- printing on a large web-fed rotary press
- finished newspapers coming off the press

**F2.10 *Wakefield Express: the portrait of a newspaper* (1952)**

33 minutes, VHS and 35mm

Director: Lindsay Anderson

Producer: Michael Robinson

British Film Institute

**Overview**

Newspaper production at the Wakefield Express, narrated by George Potts

**Summary**

Title sequence comprises type being set, cast, proofed and then final prints are the titles.

- collecting local stories in Horfield
- history of Wakefield and its newspaper
- the kind of stories that go into the paper

**21:42 Linotype operators at work**

- galley proofed and a hand press
- proof reading
- making relief halftones

**24:30 Advertising****26:00 Type being assembled into pages**

- forme being locked up and planed
- taking a proof of the forme on a mangle
- mangle then used to make a flong
- blank spaces on the flong are strengthened by backing with paper felt
- casting a curved stereotype plate which is then trimmed ready for printing
- positioning plates on the press
- various shots of the press running

**F2.11 *Trees to Tribunes* (1937)**

20 minutes, b&w

TreesT1937.mpeg

[www.archive.org](http://www.archive.org) | University of Reading

**Overview**

The first 16 minutes focuses on the *Chicago Tribune's* logging and paper production operations in Canada. The remaining few minutes look at the various departments of the Tribune followed by a look at image reproduction.

**Summary****18:31 Photographing artwork onto a glass plate**

- exposing the plate onto a zinc plate
- powdering the zinc plate with dragon's blood
- washing the plate after etching
- routing away unwanted metal
- mounting the plate on a metal base
- proofing the plate on a proofing press

**F2.12 *Good neighbours* (1944)**

22 minutes, b&w, mpeg

GoodNeig1944.mpeg

[www.archive.org](http://www.archive.org) | University of Reading

**Overview**

Film showing newspaper production at the *Minneapolis Star Journal and Tribune*.

**Summary**

- a brief history of the Upper Mississippi Valley
- various scenes from the news room showing how stories come in

**5:04** Linotype machine operators

- picture reproduction from photographs and wire photo (using the same footage as Spot News (K2.1))
- retouching pictures and creating original artwork

**8:10** Photographing an image through a screen

- plate being removed from an acid bath
- proof of a plate taken on a hand operated proofing press
- page make-up
- making a stereotype flong
- the flong is fit into a casting box and a stereotype plate is cast
- stereos traveling by conveyor belt to the presses
- plates being fitted to the cylinder of a press
- various shots of large rotary presses running

**12:15** Distribution and delivery of newspapers**13:35** The work of *Star Journal* and *Tribune* reporters**F2.13 News travels fast (1960)**

24 minutes, b&w, 16mm

Director: G. Dawson

Producer: M. R. Warner & Son

British Film Institute

**Overview**

Newspaper production at the *Express and Star* – one of England's leading provincial newspapers – presented by the Midland News Association Ltd.

**Summary**

Explanation of how news comes in by the Press Association and Reuters, London correspondents, branch correspondents, and local reporters and the different kinds of stories covered

**5:36** Advertising

- the *Express and Star* telecommunications room – telephoto machines
- sub-editors organising news material
- the *Express and Star* library
- news submitted to the editor and the content of the newspaper is finalised

**10:47** Stories delivered to the composing room

- Linotype machine operators at work
- cast line coming of the machine
- hand compositors assembling matrices for headlines and advertising copy
- headline being cast
- galley proofs
- checking proofs

**13:43** Art work being produced by hand

- print being photographed onto film
- emulsion distributed across a plate in a whirler
- negative and plate placed together in a frame and exposed under a mercury art lamp
- plate treated with dye to bring out the image
- plate being removed from acid bath
- trimming the etched plate

**15:46** A forme of type being completed, locked up, and planed

- stereotype mould of a forme being made
- mould placed into an infra-red drying machine
- flong placed into casting machine, molten metal poured in and cast removed
- cast plate in a finishing machine

**18:19** Curved stereotype plates being fitted to the cylinder

- rotary press being started up and press increasing in speed
- various shots of rotary press running
- finished newspapers coming off the press

**21:00** Newspapers being packed up and loaded into vans and delivered to destinations around the country**22:05** 'Stop press' late news being added – without stopping the presses**F2.14 The Belfast Telegraph (1934)**

5 minutes

British Film Institute

**Overview**

Newspaper production at the *Belfast Telegraph*

**Summary**

- a view of the *Belfast Telegraph* premises
- news stories arriving
- the Linotype room
- photographing
- exposing plate and negative
- taking a proof
- locking up type in a forme
- making a flong
- backing flong
- roasting the flong electrically to make it curved
- casting and dressing a stereotype plate
- fitting plates to the cylinder of a rotary press
- printing newspapers on a rotary press and finished newspapers coming off the press
- newspapers being packaged up and dispatched.

**F2.15 Printing story (24/06/59)**

10 minutes, b&w

British Film Institute

**Overview**

Interviews with Mr Green (editorial) and Mr Beech (production) about their two-man newspaper operation *The Weekly Express*. Includes shots of rotary and sheet-fed presses, Linotype keyboarding, and making-up formes of type.

**F2.16 The Daily Herald (1961)**

14 minutes, b&w, VHS

British Film Institute

**Overview**

Footage of a night's production at *The Daily Herald*, narrated by a former worker (Gordon Silk?). Unfortunately the picture quality is extremely poor – none of the footage is particularly unusual but it is interesting to get a perspective of newspaper printing from someone who worked in the press room.

**Summary**

- cleaning machines ready for production



- workers waiting in the canteen for plates to come in
- threading papers over the cylinders of a press
- plates being distributed amongst the various presses
- fitting plates, including a dummy plate with no text on it, onto cylinders
- presses running
- finished papers coming off the press
- changing the plates during the course of a run to accommodate the latest stories
- running paper out of the machine at the end of the night's run and plates being removed

### F2.17 *The fourth estate: a film of a British newspaper* (1939)

61 minutes, b&w, VHS & 35mm

Director: Paul Rotha

British Film Institute

#### Overview

Newspaper production at *The Times*.

#### Summary

- view of Fleet Street
  - the press room
  - various departments of the newspaper / parts of the newspaper – map room, information room, crosswords, job ads
- 13:50** The City page (business news) – different kinds of news
- 17:30** News agencies and reporters
- 25:52** Editor's meeting  
History of *The Times*
- 31:15** The Linotype composing room and Monotype composition and casting
- 32:00** Finalising the layout of the newspaper and reporters finishing their stories
- 35:00** Proof readers at work  
The process of accepting/rejecting stories
- 42:37** Making up pages and locking type up in a forme
- proof taken on a proofing press
  - making a half-cylinder flong
  - casting a stereotype plate
  - locking plates into position on the press
  - various shots of the press room
- 49:00** The second edition
- formes of type being altered
  - new stereotypes being fitted to the presses
  - printing adverts for news stands
  - presses running and being moved up to full speed
  - finished newspapers coming off the press
  - various shots of the press room with the presses running
  - packing up and distributing the finished papers

### F2.18 *News story* (1961)

21 minutes, b&w, VHS

Director: Gerard Bryant

Producer: Frank A. Hoare

British Film Institute

#### Overview

Newspaper production at the *Manchester Guardian* and *Evening News*

#### Summary

- 3:50** Presses being cleaned  
Deciding what will be in the paper
- 8:00** Paper being fed through a press
- 9:00** Editorial conference
- 10:43** Typesetting and casting on a Linotype machine
- galleys of type
  - galley proof being printed
- 12:40** Making up a forme
- taking a quick proof by inking up with a hand roller, placing paper on top, and running a large, heavy roller over the top by hand
  - changing page makeup to accommodate a new story
  - locking type up in a special chase (integral levers to apply pressure rather than quoins)
- 15:45** Making curved stereotype plates
- plates delivered to press by conveyor belt and locked into place on the cylinder
  - rotary press being started up
  - the press running and finished newspapers coming off it
  - papers being packaged up ready for delivery

### F2.19 *Production of The Times* (1927)

15 minutes, b&w, 35mm

British Film Institute

#### Overview

Newspaper production at *The Times*

#### Summary

- Paper making
- logging in Canada
  - paper mills at Gravesend
  - making pulp
  - machine made paper (paper being formed on bed of machine, drying drums)
  - damping paper and winding onto reels
  - calendaring
- Producing copy
- the reporters room at *The Times*
  - sub-editors at work
- Typesetting
- copy arriving in the composing room
  - comps stamp copy with time received
  - composition and casting on an Intertype machine
  - Monotype keyboarding and casting
  - hand composition
  - proofing two galleys at a time
  - proof readers working in pairs
  - type made up into columns and pages
  - forme arrives at the foundry



- making a stereotype mould
- trimming the flong and curving it
- casting a stereo
- stereo plate finished in the auto-shaver

#### Printing

- plate sent to press room and fitted onto cylinder of rotary press
- printing begins, shots of rotary press running and finished newspapers come off the press
- newspapers being packaged up and dispatched

## F2.20 *Newsprint* (1940)

27 minutes, b&w, mute

British Instructional Films Ltd

3244\_04.wmv and 3247\_01.wmv

[www.britishpathe.com](http://www.britishpathe.com)

### Overview

Follows a news story (Malcolm Campbell breaking the land speed record in *Bluebird*) from its arrival in the newsroom to delivery of the finished newspapers. Great footage of a special machine washing and brushing curved stereotype plates and of the press slowing down so a new reel of paper can be attached without having to stop printing.

### Summary

Reel 1 3244\_04.wmv

- a view of Fleet Street
- news coming into a newspaper's telephone exchange and cable room
- sub-editor marking up text
- typesetting on a Linotype machine
- adding the last few lines to a forme of type which is then planed and locked up

- 7:08** Making flong – close-up of the pressure being applied in the press and of the resulting flong which is then sent to the casting room.
- flong being put into a machine which curves it, and then into a casting box
  - curved plates being taken from the casting box and put into a machine which cleans and brushes it
  - finished plate travelling by conveyor belt to the printed press where it is fitted to the cylinder of a web-fed rotary press
- 12:14** Reel 2 3247\_01.wmv
- a roll of paper being loaded onto the press
  - more plates being fitted to the cylinder of the press
  - the press running with close-up shots of the various parts
  - slowing the presses down to attach a new roll of paper
- 20:02**
- finished newspapers arrive in the packing room and packed up for distribution
  - a *Daily Mail* van delivering newspapers to a station

## F2.21 *Vogue* (20/05/1946)

3 minutes, b&w

1392\_10.wmv

[www.britishpathe.com](http://www.britishpathe.com)

### Overview

Planning an issue of *Vogue*. Models photographed and stories written. Shots of the 'layout experts' in the art department cutting and pasting layouts. Printed sheets shown coming off the press, pages collated, covers being folded and added by hand, complete magazines being guillotined.

## F2.22 *From trees to Tribunes* (1931)

26 minutes, b&w, mute, mpeg

FromTree1931.mpeg (12 minutes)

FromTree1931\_2.mpeg (14 minutes)

[www.archive.org](http://www.archive.org) | University of Reading

### Overview

Film showing production of the *Chicago Tribune*. The first part (FromTree1931.mpeg) introduces some of the staff and shows the many cartoonists at work. The second part (FromTree1931\_2.mpeg) covers production including great shots of the engraving room and Linotype room and a 'magic camera' showing how the front page is composed.

### Summary (FromTree1931\_2.mpeg)

- the engraving room with several large cameras
  - etching the plate
  - routing the plate
  - large Linotype machine room
  - proof correcting room
  - making up pages
  - make-up of the front page shown with a 'magic camera'
  - making a matrix for casting a curved stereotype
  - curved plate being taken out of the casting box
  - locking plates onto the press
- 5:59** Printing
- view of a the rotary press (the longest single newspaper press in the world)
  - a new reel of paper being fitted on to the press without stopping printing
  - finished newspapers coming off the press
- 8:40** Printing rotogravure sections
- inking up the cylinder
  - images on the cylinder
  - presses running
- 10:09** Packing and distribution
- machine wrapping and addresses completed newspapers
  - bundles of papers being sorted for delivery
  - newspapers taken away by horse and cart
  - papers for sale in the street and delivered to a home

**F2.23 Eve – Editor – publisher, and seller**

(24/01/1929)

1 minute, b&amp;w, mute, wmv

874\_06.wmv

www.britishpathe.com

**Overview**

'Eve' at a Linotype composing machine, handsetting type, and printing on a treadle press.

**F2.24 News in the desert (18/01/1943)**

2 minutes, b&amp;w, wmv

1071\_22.wmv

www.britishpathe.com

**Overview**

Compositor hand-setting type. Close-up of type cases. Forme of type being locked up. Printing the Eighth army news on a foot-operated treadle press.

**F2.25 The Daily Worker offices (1948)**

3 minutes, b&amp;w, mute, wmv

2425\_11.wmv

www.britishpathe.com

**Overview**

Includes typesetting on a Linotype machine, composition of pages and printing on a web-fed rotary press.

**F2.26 Tobruk – our desert stronghold (25/09/1941)**

3 minutes, b&amp;w, wmv

1129\_38.wmv

www.britishpathe.com

**Overview**

Story of the British forces occupation of Tobruk, Libya with a brief glimpse at production of *Tobruk Truth*, the garrison's news sheet.

**F2.27 Front line newspaper (01/02/1945)**

3 minutes, b&amp;w, wmv

1143\_19.wmv

www.britishpathe.com

**Overview**

Includes shots of a keyboarder at Monotype machine, knocking down a forme, and fitting rotary plate into press

**F2.28 The years of history: Silver anniversary for Sydney newspaper (1966)**

3 minutes

3203\_04.wmv

www.britishpathe.com

**Overview**

Celebration of 25 year of the *Daily Mirror* (Sydney). Sub-editors marking up proofs. Large Linotype composing room. Pages of Linotype/Intertype being put together. Proof taken on 'a special flexible matrix'.

Curved plate being taken from casting box and fitted onto large web-fed press. Second half of film revisits news stories from the year the paper was launched.

**F2.29 Fashion page: pretty new look in hairdos (nd)**

1 minute, wmv

3042\_01.wmv

www.britishpathe.com

**Overview**

First twelve seconds shows web-fed rotary press printing a fashion magazine (*Good Housekeeping*). The rest of the film is about 'hair beauty'.

**F2.30 Voice of the Allies (10/08/1944)**

1 minute, b&amp;w, wmv

1364\_20.wmv

www.britishpathe.com

**Overview**

Includes brief shots of the typesetting and printing *La Voix des Alliés* – a daily newspaper bringing news to liberated areas of France

**F2.31 Printing the Daily Express (nd)**

2 minutes, b&amp;w, mute, wmv

2429\_14.wmv

www.britishpathe.com

**Overview**

Shots of the *Daily Express* being printed on a web-fed rotary press

**F2.32 The Denning report (30/09/1963)**

2 minutes, b&amp;w, wmv

1774\_40.wmv

www.britishpathe.com

**Overview**

Includes a few seconds of printing at the *Daily Mail*.

**F2.33 Los Alamos atomic town (1947)**

2 minutes, b&amp;w, mute

2166\_24.wmv

www.britishpathe.com

**Overview**

Includes a few seconds of the *Los Alamos Times* being printed on a flat-bed cylinder press.

**F2.34 Printing the Daily Express (nd)**

5 minutes, b&amp;w, mute, wmv

2429\_20.wmv

www.britishpathe.com

**Overview**

Shots of the *Daily Express* being printed on a web-fed rotary press. Shorter version, lacking sound, of F2.36.

**F2.35 *Printing the Daily Express* (nd)**

5 minutes, b&w, mute, wmv  
2431\_02.wmv  
www.britishpathe.com

**Overview**

Shots of the *Daily Express* being printed on a web-fed rotary press. Shorter version, lacking sound, F2.36.

**F2.36 *Printing the Daily Express* (nd)**

9 minutes, b&w, wmv  
2429\_19.wmv  
www.britishpathe.com

**Overview**

Shots of the *Daily Express* being printed on a web-fed rotary press

**F2.37 *The last Fleet Street printing press* (c.2000)**

2 minutes, mov  
BuildThePress.mov  
University of Reading

**Overview**

Short time-elapased clip of part of a huge rotary press from the *Daily Mail* being installed in a hangar by the Science Museum.

**F2.38 *Printing the Daily Express* (nd)**

1 minute, b&w, mute, wmv  
2066\_12.wmv  
www.britishpathe.com

**Overview**

Shots of curved printing plates being produced. Beating the flong into the type with a brush and then pressing it in two different machines.

# *Technology*

## **H Printing science**

- H1 Printing science
- H4 Packaging technology
- H5 Colour & colour science
- H6 Inkmaking

## **J Typemaking & typesetting**

- J1 Typefounding
- J2 Hand composition
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## **K Graphic reproduction**

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## **L Printing processes**

- L1 Printing technique
- L2 Digital & electronic printing
- L3 Lithography
- L4 Gravure
- L5 Screen printing
- L8 Ruling and minor processes

## H1 General printing science

### H1.1 *Goodbye Gutenberg!* (1980)

88 minutes, VHS

Producer: BBC

RBS v5.11 | University of Reading

#### Overview

This film looks at the cutting edge of communications technology and what the future might have in store. Not all of the predictions were spot on (in fact some turned out to be wildly inaccurate) but many are now common and it is interesting to see the 1979 vision for the future. Presented by Anthony Smith.

#### Summary

The film opens with a brief run through the process of casting type and printing by hand before moving on to modern printing and typesetting equipment:

- striking a matrix
- handcasting
- hand composition
- putting a chase of type onto the bed of the press
- pulling a print on a proofing press
- rotary presses in action
- using computers for typesetting at the LA Times
- an advert being set on a cathode ray tube
- a printing plate made from a computer printout
- classified ads – a room full of people entering text on computers
- final paste up still done by hand

Predictions for the future

- personalised printed pages
- newspapers to deliver other texts – magazines, library books, and bills
- delivery by electronic transmission

Current cutting edge technology

- videotex
- Mills & Allen Presstel service
- discussion of the positive aspects computers have brought to libraries (storing text on disks – ‘one day the whole text might be available!’ – being able to search an index)
- the Lexis system used to search US law cases (at \$150/hour)
- ‘This could all be available on a home computer screen – if we come to such a time when these screens are common’
- The effect of changing communications technology on money, banks, and financial transactions: money being transmuted to information
- CITICORP predict that they will need an ‘integrated electronic office’
- checking mail on screen (replies to messages are put into the outbox for the secretary to deal with!)
- working from home and being able to receive and send messages at any time

Discussion of society entering a new age of communication and information based on information flow and communication rather than production of goods

- the Xerox xten network, using satellites to inter-connect office equipment to send information from machine to machine

- ACS (AT&T’s Advanced Communication Service)

- SBS (Satellite Business Systems)

**40:15** A discussion of how the printing press revolutionised society over historical images of print workshops

- transformation of the scribal system
- Latin replaced by vernacular
- unifying and divisive influences
- the creation of bureaucracy
- censorship

The programme claims that understanding what happened could help to predict the effects of the electronic communications revolution.

**48:08** How different countries have been affected by new technology

- Japanese typewriters – picking up individual pieces of type from a tray and fitting it to the typewriter every time a character occurs that is not part of the standard Japanese typewriter character set
- an explanation of how the Japanese writing system works
- the first Japanese word processor
- speech recognition systems
- prediction that within 20 years computers will be able to translate
- Swedish data laws
- the introduction of computers to the American government
- the American Security Council (ASC) printing house producing personalised letters which are folded, put into envelopes, and stamped by machine
- ‘electronic text is going to change your life’!

### H1.2 *New world of ITU* (c.1973)

30 minutes, VHS

Director and Producer: the ITU training center  
University of Reading

#### Overview

Film produced by the International Typographic Union about the introduction of computers into the composing room and developments in phototypesetting and plate making technology. Aimed at convincing ITU members that new technology is a good thing.

#### Summary

- computer justification and hyphenation
- computers connected to typesetters (removing the need for punched tape)
- capturing and storing keystrokes
- introduction of ECRM to ‘read’ typed text
- barcode scanners
- video display terminals
- CRT typesetters
- OCR scanners (shows the Autologic APS-4-100 fka Photon 7000)
- the first full-page makeup terminal
- colour scanning
- plastic plates
- plateless printing

## H3 Printing machinery

### H3.1 *The common press, the cylinder press, the Linotype, the Monotype, and computer typesetting* (1996–2002)

5 × 5 minutes, DVD

Director: John Paulson

Producer: Smithsonian Institution

RBS dvd5.15 | University of Reading

#### Overview

DVD of five short films written by Stan Nelson and John Paulson. Each film is only 3–4 minutes in length but contain some good quality footage and are well narrated. The film about the common press is the only one in this list which shows the how the beater and puller worked together as a team. Unusually the Monotype film explains the mathematical computation system but not the matrix case and how it is driven by the paper spool. The first four films are excellent but the one on computer typesetting not of the same standard – it doesn't explain anything of how digital typesetting actually works (e.g. how the character information is stored).

#### Summary

1. The common press
  - inking formes with ink balls
  - an explanation of the development of the common press
  - inking and double pull printing
  - hand-setting with movable metal type
  - moving the type from the stick to the forme and locking up
  - inking
  - the beater and puller working in tandem
2. The cylinder press
  - shots of various flat-bed cylinder presses
  - explanation of the three key inventions (steam engines; precision parts, showing close-ups of various parts of the press working; inking rollers, showing a roller being inked
  - sheets being fed into the feeder by hand and carried away by the grippers
  - the bed moving in and out, the forme being inked and an impression taken
  - sheet taken up by the transfer cylinder onto guides, deposited on the delivery board and taken away by the fly boy
  - images of multi-feed presses
  - handsetting
3. The Linotype
  - the first production model Linotype
  - Linotype keyboard
  - matrices
  - matrices forming a line
  - matrices carried to caster
  - Slugs emerging from the machine (a different system to later Linotype machines)
  - matrices returned to storage channels and the whole process repeated
  - web-fed presses and banks of Linotype machines (old black and white news film?)
  - slugs being placed into a large forme and planed

#### 4. The Monotype

- the advantages of the Monotype explained
- the keyboard and caster
- explanation of the mathematical computation system
- close-up of paper tape being punched
- the cylinder calculating the required justification
- keyboarder pressing the key for justification
- type and alloy pig being melted in the cauldron
- freshly cast type coming out of the machine
- a forme of type being composed and printed

#### 5. Computer typesetting

- handsetting and Monotype
- type being set by computer
- compares Monotype to digital (use of memory and mathematical computation)
- typesetting in Adobe Pagemaker 6.5 on a PC (setting type in a ruled box and changing from italic to roman)
- the same thing is done with handsetting
- comparing kerning onscreen and kerning with metal type
- brief shots of page layout on an Apple Mac and a large web-fed printing press
- closes with school children manipulating text on screen

## H4 Packaging technology

### H4.1 *The elevation of labour* (1930)

10 minutes, b&w, mute, wmv

3259\_03.wmv

[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

First reel of a promotional film for the Co-operative Productive Federation. From approximately four and a half minutes in all of the footage is of a printing works. Includes shots of Monotype composing and casting rooms, with several machines working in each, and another large composing room with cases of type. Various powered cylinder presses at work, die cutting, different stages of machine binding, a pen ruling machine and machines for making boxes. Unfortunately all without any explanation.

## H5 Colour & colour science

### H5.1 *Colour proofing: a bridge to quality* (1991)

22 minutes, VHS

University of Reading

#### Overview

Promotional film for Du Pont Imaging Systems various people in the printing industry are interviewed and the film examines various aspects of proofing. Includes a useful section explaining how Cromalin proofs are made.



**Summary**

Introduction comparing colour proofing to bridges (hence the subtitle) – the film returns to this analogy throughout.

- 1:41** Why proof?
  - interviews with Bob Fox (J. Walter Thompson), Roy Walsh (Midland Graphics), and Brian Boddy (The National Magazine Co)
- 4:15** Development of proofing
  - machine proofs (offset cylinder press)
  - wet proofs (offset flat-bed press)
  - photomechanical proofs
  - interviews with John Grogan (Institute of Practitioners in Advertising) and Leslie Neilon (Reader's Digest)
- 8:24** Making a proof
  - explanation of using Cromalin proofs at Midland Graphics
  - explanation of how Cromalin works
  - putting the film separations into the right order
  - laminating the Cromalin board (making it sensitive to UV light)
  - positioning the Cyan film on the board and into the exposure frame
  - sheet fed into cyan section of automatic toning machine
  - relaminating the board
  - registering the magenta film on top of the cyan print
  - final lamination and final exposure which hardens and seals the proof
  - using matt and gloss finishes together to create a spot varnish effect
  - applying special colours by hand
- 13:30** Quality standards
  - shots of a large sheet-fed offset press
  - examples of how the human eye can be deceived (objective measurements in printing)
  - control strips
  - Dave West (Leicester Photo Litho Service)
  - Clive Pitt (Jarrold Printing)

**H5.2 Color printing (1994)**

26 minutes, mpeg

Director: Peter Nichols

Producer: Frank Kwok

ar\_cc149\_color\_printing.mpeg

[www.archive.org](http://www.archive.org) | University of Reading

**Overview**

Episode 149 of US television series Computer Chronicles looking at colour printers for the home/office

**Summary**

Using a Canon BJC-600 at Pheonix Baptist Hospital, Arizona

- 5:40** Inkjet printing on the HP Deskjet 550C
- 9:23** Printing on a Techtronics Phaser 200 printer using thermal transfer technology
- 13:20** Large format inkjet printing
- 15:10** Colour laser printing on the QMS Laser 1000
- 18:54** Dye sublimation technology

**H5.3 Colour in print (nd)**

36 minutes, DVD

Producer: Alabaster, Passmore & Sons

University of Reading

**Overview**

A film looking at four-colour letterpress printing made by printing firm Alabaster, Passmore & Sons following production of a booklet from initial concept to final product. Includes the best footage of any film on this list of making a stereotype plate and then electrotyping it (in fact the stereotyping section is much more interesting than the parts on colour printing). Also the only film on this list that explains how a plastic overlay sheet with raised areas corresponding to the areas to be printed could be made for each forme.

**Summary**

Part 1: composition, foundry, and imposition

Monotype composition and casting

- Monotype keyboard operator at work
- paper spool and matrix case
- fitting the matrix case to the caster
- checking cast types in a gauge
- fitting the paper ribbon
- 4:38** Printing proofs
  - setting galley proofs
  - tying up type
  - inking up and printing proofs on a small flat-bed cylinder proofing press
  - checking proofs
  - making corrections to the type
  - pulling proof on a powered flat-bed cylinder press
  - making up type and blocks into pages
  - halftone block being pinned into position
  - page proofs made on correct paper and format on a small hand-operated flat-bed cylinder press
- 9:00** Making stereotype plates
  - taking out the halftone illustration
  - locking up type in a forme and planing it
  - taking an impression on a hand operated flat-bed cylinder press
  - flong being sprayed with enamel
  - flong dipped in water
  - flong placed on top of the forme in a hydraulic moulding press with a cushion of moulding materials
  - trimming the mould
  - drying the mould on a hot plate
  - paper tang attached to one end of the mould (to prevent the metal running onto the back of the mould)
  - mould placed into casting box and pica gauges fit onto the bearers of the mould
  - a paper mould placed on top to prevent the metal from touching the casting box
  - casting box lid secured and box moved to vertical position
  - type metal being poured into the box
  - cast plate being removed from casting box
  - breaking off the tang end of the casting
  - trimming the edges of the plate
  - trimming the back of the plate to pica height
  - routing the plate to deepen the channels between

- the type and around the edges
- holes made in the stereo to enable it to be suspended in the plating bath
- cleaning the plate ready for copper plating
- plate being electroplated in copper and then nickel tanks
- plate being sawn into pieces

- 16:40** Proof pulled of halftone illustration to make an 'interlay' for make ready of a halftone (shapes cut out and pasted onto dark areas of illustration)
- making up a page from stereotype and halftone block
  - imposition of pages
  - use of perspex sheets to check correct positioning
  - fixing bars on the chase to prevent bowing in final lock up
  - forme transferred to a trolley and then to the bed of a large automatic inking proofing press
  - checking the proof on a register table
  - storing formes in a huge rack

**22:18** Part 2: printing and binding

Make ready

- yellow forme positioned on bed of press
- dressing the cylinder with packing
- adjusting the lays to fit the size of the sheet
- inking up the press with green ink to check make-ready for the yellow impression
- pulls taken (including a proof of the black forme) necessary adjustments are made

**26:20** Making an overlay

- a pull is taken on special plastic paper using black ink
- sheet passes through an exposure unit with an infra-red heater (the black areas absorb the heat and swell up)
- the white areas reflect heat (this gives 4/1000 of an inch more thickness on solid black areas)
- this sheet is placed on the cylinder in place of another sheet

**27:45** Printing a run

- yellow four-colour process ink being placed into the ink duct
- ink being fed by hand onto a roller and then automatically distributed onto a slab and then to the inking rollers
- feeder being loaded with paper
- press running with close-ups of various components
- printing the red forme
- adjusting the level of inking
- printing the blue forme
- printing the black forme
- checking the printed sheets

**32:38** Binding and finishing

- sheets being cut in half by a slitter bade
- folding machine
- gathering sections on a Christenson collating and wiring machine
- cover is added and the book is stapled
- trimming

## H6 Inkmaking

### H6.1 *Industry on parade: a pictorial review of events in business and industry: Paperman's paper! Ink inc! Use and discard!* (c.1951)

10 minutes, b&w, mpeg

Producer: The National Association of Manufacturers  
papermans\_paper.mpg

[www.archive.org](http://www.archive.org) | University of Reading

#### Overview

Three separate stories on one film. *Paperman's paper!* features production of *The Log* the in-house publication of Champion paper and fibre company. *Ink, ink!* shows ink making at the Sun Chemical Corporation plant in Illinois – the largest ink Producer:in the USA. There is little explanation of the process and the film is only three minutes long but this is the only footage of commercial ink making on this list. *Use and discard!* shows the production of printed paper cups at Lily Tulip Cups in Augusta Georgia

#### Summary

Paperman's paper!

- producing artwork by hand
- pasting up dummy pages
- the Linotype operator at work
- a forme of type being locked up
- sheets being printed on the press
- brief shot of a large web-fed press

**2:42** Ink, inc!

- processing rosin
- mixing rosin with oil in a kettle
- adding another rosin (gilsonite?)
- adding mineral oils
- adding carbon black (soot)
- ink being discharged into a tank
- distribution of ink in barrels and tanks
- brief shot of a web-fed press running

**5:44** Use and discard!

- printing on various presses, including one where the forme moves to meet paper running along a horizontal bed
- product testing
- packing up the cups
- various uses for paper containers

### H6.2 *Making your own printing composition rollers* (1988?)

33 minutes

University of Reading

#### Overview

An amateur film showing how to make printing composition rollers. The quality of production is appalling but it is the only film on this list which shows how to make rollers.

#### Summary

- ingredients for making rollers 2lb (?) of animal glue in block form; 1 cup of molasses; 6 oz of glycerine; 6 oz of liquid gum arabic; 2 oz of water
- ingredients melted together and the secret



ingredient is added – Coors beer!

- stripping an old roller
- fixing the spindle into the mould base
- greasing the interior of the mould
- filling the mould with composition
- removing the roller from the mould
- cleaning the mould
- making your own mould

## J1 Typefounding

### J1.1 *Making type by hand: a demonstration by Stan Nelson and Dan Carr in the Department of Typography & Graphic Communication, University of Reading* (1993)

9 minutes, VHS

University of Reading

#### Overview

Short film made as the Department of Typography & Graphic Communication's contribution to the Didot project. Provides an excellent overview of the process of punchcutting and type casting by hand. *From punch to printing type* (see J1.4) provides much more detail.

#### Summary

Punchcutting

- softening (annealing) a punch blank and filing it
- diagram showing the four stages of making type by hand
- smoke proofs
- filing punches
- using a counterpunch
- hardening the punch

#### 6:00 Making matrices

- preparing the matrix
- Striking the matrix

#### 7:30 Handcasting

- the adjustable mould
- casting type

### J1.2 *Casting a font of metal type* (1986)

66 minutes, VHS

Director and Producer: Rich Hopkins

RBS v5.8 | University of Reading

#### Overview

Rich Hopkins at the Hill and Dale Private Press and Typefoundry shows his range of casting machines and discusses various different kinds of matrices (most of which are not shown in any other film). He then demonstrates, in great detail, how to cast type on a Monotype Supercaster and a Monotype 15 × 17 American Caster. The image quality is poor but the explanations of how the Monotype machines work are arguably better than in any other films and the footage of the Thompson and the brief clips of other machines (the material caster and 'Orphan Annie' sorts caster) are extremely rare. The Reading copy has an additional 18m interview with Rich Hopkins.

#### Summary

Shots of the various machines at the Hill and Dale Press and an explanation of their uses.

- Lanston Monotype Monomatic 2 c.1968
- 15 × 17 American Caster
- Thompson Typecaster
- Monotype Supercaster
- 'Orphan Annie' Monotype Sorts Caster
- Monotype Material Caster

Discussion of different types of matrix.

- Foundry matrices
- Linotype matrices
- Ludlow matrices
- Giant Monotype matrices (60 pt Cooper Black)
- Thompson matrices (48 pt Garamond italic)
- Compositing matrices
- Lanston Monotype matrices (copper and aluminium)
- English Monotype matrices
- an unfinished Chinese character matrix
- a box full of English Monotype matrices
- a shelf full of US matrix boxes
- a box of 24 pt Californian matrices

Preparing matrices for casting

- matrices sorted onto a table and arranged into set widths
- 'font scheme' from an ATM specimen book showing the numbers of each character required.
- a matrix being put into a matrix holder which is then fitted into the machine

#### 18:09 Operating the Thompson casting machine

- shots of the machine running with an explanation of some of the parts
- checking the width of cast letters
- checking the vertical position of characters on the body
- using a steel line standard
- shots of the machine running
- checking casts under a magnifying glass
- the 'jet breaker'
- type coming off the machine
- changing to a different width of mat

#### 33:00 Four or five hours after the start of casting five sets of the font are now complete

- composing all the required characters in a composing stick
- shot of a complete font being tied up, wrapped, and labelled, ready for delivery

#### 40:00 Shots of other machines casting

#### 42:40 Matrices for the composition caster

- differences between different kinds of Monotype matrix case with examples of 15 × 15, 15 × 17, Monomatic 18 × 18, and Monomatic 2 cases.
- discussion of Monotype composition matrices showing: the difference between American and English matrices; double and quad matrices; how matrices are arranged in a Monotype matrix case (by width) and in a Monomatic case (by frequency).

#### 50:06 The Monotype composition keyboard

- a rack of matrix cases and corresponding wedges and stop bars
- close-ups of a stop bar showing unit widths and the corresponding wedge and calculation wheel
- installing the stop bar, calculation wheel, key bar, and keyboards and turning on the compressed air
- keyboarding a font (for casting not composition)

The composition casting machine

- fitting the paper ribbon
- changing the wedge
- fitting the matrix case and an explanation of how it moves
- the machine casting quads which are checked in a steel standard
- the machine casting capital Hs which are checked

- in a steel standard and against one another
- the machine casting type
- a complete font ready for packing

Interview with Rich Hopkins (not on RBS copy) which shows Hopkins handsetting and running a treadle press before looking at modern printing at the Pioneer Press

- photocomposition, typesetting at a VDU showing 'previews'
- instructions on paste-up
- paste-up being photographed
- stripping-in a photograph
- making a plate
- shots of various offset litho presses and finishing machines running

### J1.3 *Abbreviated type casting* (nd)

10 minutes, VHS

University of Reading

#### Overview

Don Turner casting type at Oxford University Press. The only film in this list that shows a pivotal type caster in operation and one of only two that show how to dress hand cast type (the other is *From punch to printing type*).

#### Summary

Hand casting

- fitting a matrix into a mould
- casting type

Pivotal type caster

- fitting bottom half of mould to machine
- adjusting the machine
- casting the machine

Dressing hand cast type

- breaking off the tang
- smoothing the sides (special file used for italic type)
- type assembled into a wooden dressing stick
- type transferred into a metal stick on the dressing bench and securely stamped
- clamping the stick into the dressing bench vice
- bottom of the type levelled and the nick added by planing the type with a dressing blade
- special plane used to make all of the type the same height
- increasing the height of type that is too short

### J1.4 *From punch to printing type: the art and craft of hand punchcutting and typefounding* (1985)

47 minutes, DVD

Director: Peter Herdrich

Producer: Terry Stevick

LC | RBS dvd4.7 | University of Reading

#### Overview

Stan Nelson at the Atelier Press & Typefoundry shows the various stages involved in making type by hand. Essential viewing for anyone interested in handmade type. The only film in this list to show this process in such detail, it includes footage of stages not seen in other films, such as justifying

a matrix. Also provides an excellent insight into the various special tools and pieces of equipment required. Available to buy from the Book Arts Press: [www.rarebookschool.org](http://www.rarebookschool.org)

#### Summary

Introduction

Explanation of how to make a punch

The face gauge

#### 4:30 Preparing the punch blank

- filing the face
- squaring off the aides
- cutting a signature mark
- grinding the face of the punch on an abrasive stone
- polishing the face of the punch on a piece of slate
- Scribing: laying out the letter

#### 7:46 The counterpunch

- filing the face of the counterpunch
- measuring the drawing on the punch
- drawing the shape of the counter based on the measurements taken
- rough filing using large coarse files
- fine filing with the counterpunch held against an engravers bench pin / tack magnified through a lens

#### 10:40 Proofing the counterpunch

- testing the counter punch by striking into a piece of lead

#### 11:52 Hardening the counterpunch

#### 13:32 Sinking the counterpunch

- placing the punch and the counterpunch into a specially made 'counterpunching fixture' which positions the counterpunch in exactly the right position over the punch
- striking the counterpunch into the punch
- reflattening the face of the punch and redrawing the character

#### 16:30 Shaping the letter

- engraving the bowl of the e with progressively finer gravers
- filing the outside of the letter

#### 20:05 Making a smoke proof

#### 22:13 Annealing & tempering the punch

- heating the punch with a blow torch and quenching the punch to harden (anneal) it
- removing 'fire scale' with an emery stick and polishing the face
- immersing the hammer end of the punch in molten type metal to temper it

#### 24:25 Striking the matrix

- fitting a blank matrix and the punch into a special device to hold the punch at right angles to the matrix
- driving the punch into the matrix

#### 26:03 Justifying the matrix

- filing away metal displaced by the punch

#### 27:52 The first casts

- hand cast of the roughly filed matrix to check progress
- pulling the cast letter out of the mould with a 'hag' or hook
- filing the matrix and making another trial cast
- breaking of the tang and filing the piece of type

- checking the cast in a lining stick against other letters
- 31:18 Botching (widening the matrix by making indentation in the side with a chisel)
  - casting from the newly botched matrix
  - checking the type in a height to paper gauge and in a squareness guage
- 33:26 Filing notches and applying identifying marks to matrix
  - filing the notch (the resting place for the spring which secures the matrix is in the mould)
  - filing leather grooves which allow the matrix to be fastened to the mould using a leather tab
  - striking identifying marks (the point size) into the matrix
- 36:04 Schematic drawing of finished matrix
- 36:41 Casting in a type mould
  - diagram showing cross-section of a hand mould
  - explanation of the various parts of the mould
  - the action of casting type
- 39:59 Dressing the type
  - breaking off the jets
  - smoothing the sides of the type
  - smoothed type placed on a setting stick
  - using a knife to scrape the top and bottom of the type
- 43:03 Planing the feet of the type
  - type tipped onto a dressing rod and placed in the dressing block
  - trimming the feet of the type with a plough
- 44:32 Conclusion
  - type being put into the case and the matrix shown next to the printed character

## J2 Hand composition

### J2.1 *Graham Williams* (nd)

14 minutes, VHS

#### Overview

Amateur footage showing printer Graham Williams demonstrating hand typesetting and printing on an iron handpress.

Hand type setting

- explanation of uppercase and lowercase and how cases are organised
- setting type into a setting stick
- various pieces of equipment in the print shop

Printing on an iron hand press

- charging the roller with ink
- positioning paper on the tympan
- lowering the frisket
- inking up the type using bearers
- taking an impression
- brief discussion of printing wood-engravings

### J2.2 *Learning to set type* (1959)

10 minutes, mpeg

Producer: Whitton-Appleton, b&w

Learning1959.mpeg

[www.archive.org](http://www.archive.org) | University of Reading

#### Overview

Training film for apprentice compositors showing the proper way to handle type cases, how to set type into a stick and how to distribute type back into the case.

## J4 Mechanical typesetting

### J4.1 *Mergenthaler Linotype: the eighth wonder* (c.1960)

26 minutes, VHS

Director: Harold Lea

Producer: Arnold Pauken/Panken (check)

RBS v5.10 | University of Reading

#### Overview

This short film, narrated by Wallace Duquet has an interesting section on how typefaces for the Linotype machine were produced including use of pantograph machines to cut master patterns and punches. It includes unique footage of blank matrices being produced and being punched in a punching machine and of the production of the machines themselves – unfortunately the latter is difficult to understand without sufficient knowledge of the components of a Linotype machine and how they work. There is also an interesting section on the Linofilm system. However, the film doesn't give any explanation of how any of the Linotype machines actually work and suffers from poor editing which has led to the loss of some of the narration.

#### Summary

The film begins with a close-up of a Linotype matrix and then matrices spelling Mergenthaler Linotype Company which becomes the title.

Short clip of a Linotype keyboarder at work.

Close-up shots of matrices forming a line and a slug being ejected from the machine.

The operator putting the finished text together with a manuscript onto a conveyor belt which runs alongside a bank of Linotype machines

- 3:46 A (very) brief history of writing and printing. Shows hieroglyphics, early forms of writing, illuminated manuscripts, and an image of 'Gutenberg' and a common press. We then see hand composition and a large forme being planed, inked, and printed on an iron hand press (the paper is simply laid on the type – no use of tympan/frisket).
- 7:38 Line drawings of various composing machines ending with the Linotype. Shots of Linotype machines and of newspapers being printed.
- 9:10 A range of different typefaces/type styles is shown including Corona, book face, Bodoni, fat face, slab serif, and Spartan Bold. A shot of a man looking

through a type specimen book and comparing it to a drawing of a cap H begins a section on how type is produced for Linotype.

- filling in a pencil drawn character with a pen
- a shot of the draughting department at Linotype
- tracing a letter on a pantograph machine to produce a 'master pattern' with a close-up of the cutting tool in action.
- a punch-cutting pantograph using the master pattern to cut a punch. Use of a series of 'followers' to cut increasingly finely.
- a punch coming out of the furnace and being quenched.
- punches being taken from the Linotype vault which contains the punches for typefaces that cover over 1000 languages and dialects

**13:35** Blank matrices being produced – matrices coming out of the machine – notches being cut.

- matrices being punched in a punching machine
- inspecting a type specimen showing non-Latin typefaces. 'Exotic' languages (Tamil, Italian, and French!) shown over shots of their country of origin. A world map showing Linotype factories/depots/agencies.

**16:37** The production of Linotype machines – drilling the base plate – automated (tape fed) drilling machines.

**18:24** Different Linotype models:

- Linotype Comet – arranged for tape operation. Shows the machine being operated using perforated tape instead of hand keyboarding with shots of the matrices dropping from the magazine to form lines and slugs being cast.
- Model 29 Linotype – permits casting of two typefaces in a single line
- swing-out keyboard which allows the opening and inspection of the machine without removing the keyboard.
- Linotype Comet – shows how the assembler front swings outward to allow the removal of the key-rod frame for cleaning/adjustment (the key-rod frame contains the key rods which are used to release the matrices from the magazine).
- close-up of a Linotype Hydro Quadder (?) adding spaces to a line.
- Linotype Range Master 35 – a mixer Linotype with four main and four auxiliary magazines – close-up of the mixer distributor which enables matrices from two different magazines to be returned to the correct magazine by means of a notch at the bottom of the matrices.

**19:50** The Linofilm system

- keyboarders at machines
- checking a photo against a master drawing cut as frisket cut
- plaques arranged and photographed onto a grid
- glass plate being put into a camera
- inside the room which is the interior of the camera
- more shots of keyboarders using Linofilm machines which are producing perforated tape
- tape being fed into a photounit – changes font, point size, leading, and line length
- produces right reading positive type on film/paper
- enlarging type

## J4.2 *Mat travel on the Intertype* (nd)

25 minutes, b&w, mute, VHS

Producer: Deluxe Check Printers

University of Reading

### Overview

Shots of various parts of the Intertype machine in action tracing the progress of matrices through the machine. No explanation of how the machine works.

### Summary

- action of keyboard cam on rubber roll
- action of magazine escapement
- action of matrices emerging from the magazine
- matrices on matrix delivery belt
- matrices entering assembling elevator with spacebands and without spacebands
- spaceband transfer
- matrices leaving the distributor box
- matrices falling from the distributor box

## J4.3 *The cleaning of the mouthpiece and throat on an Intertype machine* (nd)

32 minutes, b&w, mute, VHS

Producer: Deluxe Check Printers

University of Reading

### Overview

Highly technical explanation of how to clean the mouthpiece and throat on an Intertype casting machine.

### Summary

- opening the machine
- removing the mould disk and slide
- removing the mouth piece shield
- removing the mouth piece
- cleaning the mouth piece
- cleaning the throat (throat saw, flushing with water, removing the squirt guard)
- applying mouth piece sealant
- replacing the mouth piece

## J4.4 *Farewell etaoïn shrdlu: an age-old printing process gives way to modern technology* (1978)

29 minutes, VHS

Director and Producer: David Loeb Weiss

RBS v5.3 | University of Reading

### Overview

The last day of Linotype hot metal composition at the *New York Times* (the Sunday 2 July 1978 edition). Excellent explanation of the process printing a large newspaper using hot metal and letterpress and a brief look at the new process – phototypesetting and offset lithography. Some great shots of the *New York Times* printing plant and interviews with Linotype operators and press men lamenting the demise of hot metal. (ETAOIN SHRDLU is the first two rows of keys on a Linotype machine.)



**Summary**

- hand composition and Ludlow machine cast headlines
- shots of the *New York Times* Linotype composing room
- explanation of the Linotype machine
- galley proofs
- proof correction
- ‘Teletypesetters’ using perforated type
- page editors and make-up men working to assemble pages
- making stereotype mats and plates
- mounting plates on a press
- rotary presses running
- production of cold type for paste up
- paste-up
- scanning a pasted up page for plate making
- matrices leaving the distributor box
- matrices falling from the distributor box

**J4.5 Typesetting (1960)**

35 minutes, b&w, mpeg

Typesett1960.mpeg (17:51) Typesett1960\_2.mpeg (17:11)

[www.archive.org](http://www.archive.org) | University of Reading

**Overview**

Italian film (English language soundtrack) produced by the Salesian Vocational Technical Schools and the International Institute of Graphic Arts of Colle Don Bosco. Fantastic explanation of how the Linotype machine works with incredible shots of different parts of the machine at work.

**Summary**

- shots of Intertype and Linotype machines
- taking a proof of some type on a proofing press
- shot of a huge amount of cast lines

- 3:32** Basic explanation of how the Linotype machine works
- keyboarding
  - matrices delivered to the assembling elevator
  - close-up of some mats
  - diagram of a mat
  - assembled line of mats carried to casting mechanism
  - machine opened up to reveal the mould
  - movement of the plunger in the crucible
  - close-up of a slug in the mould
  - slug being ejected from the machine
  - matrices being distributed back into the magazine
  - the whole process shown on a diagram
- 6:47** Composition – explanation of the principle parts
- keyboard
  - partitions
  - matrix belt
  - delivery slide
  - magazine
  - assembler entrance
  - assembling elevator
- 7:08** The Linotype keyboard – diagram showing the various parts of the machine attached to the keyboard:
- key button
  - trigger
  - rubber roller
  - keyboard lever
  - cam frame
  - comb
  - key bar
  - eccentric cam
  - key rod
- and demonstrating what happens inside the machine when a key is pressed.
- 9:00** The key rod frame

- key rods shown moving up and down
  - diagram showing how the key rods move the escapement which controls release of the matrices
- 10:42** The matrix magazine shown from various angles
- explanation of how the keyboard layout relates to the magazine
  - machine with four magazines shown
- 12:45** The assembling elevator
- mats falling from the magazine through the partitions
  - mats being carried on the delivery belt
  - mats forming a line on the assembling elevator
  - demonstration of how the two halves of the assembling elevator form a channel for the mats
  - how the duplex rail positions mats differently when italic or bold is required
- 15:34** Explanation/demonstration of how space bands work
- 17:18** Sending a line to be cast
- 17:51** Casting
- explanation of how the cams work
  - other parts of the machine related to casting
    - vice frame
    - mould disk
    - metal pot
  - diagram showing how the plunger forces metal from the crucible into the mould
  - shot of metal being ejected from the mould
- Typesett1960\_2.mpeg
- 3:51** Controlling the amount of metal in the pot
- the composition of type metal
  - controlling the temperature of the metal
  - the mould disk
- 5:00** Diagram showing the various parts of the mould and how it works
- different moulds mounted on the mould disk
  - the mechanism for ejecting the cast lines
  - water cooling system
- 6:17** The vice frame opened up and various parts shown
- the first elevator
  - the vice jaws
  - the justification block
  - the knife block and knives
  - the elevator lowering a line of mats into position between the vice jaws
  - the vice jaws controlling the position of the mats in relation to the mould
  - the justification block positioning moving the space bands into position
- 7:40** Summary of the casting (and trimming) of a slug
- 8:57** Distribution
- mats transferred from the first to the second elevator and suspended, by their teeth, from the elevator bar
  - space bands being returned to the box
  - mats being pushed into the distributor box
  - how the tooth combinations return the mats to the right channel in the magazine
- 12:17** Review of the whole procedure
- 13:35** Automatic keyboarding using punched paper tape

**J4.6 The Monotype keyboard and casting machine** (2004)

4 minutes, mov

Monotype.mov

[www.typeculture.com](http://www.typeculture.com) | University of Reading**Overview**

Short film looking at the Monotype keyboard and caster. Good explanation of how the Monotype system works, looking at how the variable spaces are calculated and recorded and how the punched tape controls the matrix case. The low resolution means this film does not view well at full screen.

**J4.7 The Linotype (Intertype model)** (2004)

2 minutes, mov

Linotype.mov

[www.typeculture.com](http://www.typeculture.com) | University of Reading**Overview**

Short, mistitled, film looking at the Intertype composing machine. Brief explanation of how the basics of the Intertype system and a shot of printing a galley proof on a proofing press. The low resolution means this film does not view well at full screen.

**J4.8 The Ludlow typograph machine (Intertype model)** (2004)

2 minutes

Ludlow.mov

[www.typeculture.com/academic\\_resource/movies](http://www.typeculture.com/academic_resource/movies) | University of Reading**Overview**

Short, mistitled, film looking at the Intertype composing machine. Shows setting moulds into a self-centring stick which is then fitted into the Ludlow machine and a display line is cast. The low resolution means this film does not view well at full screen.

**J4.9 How Monotype works**

9 × 5 minutes, mov

1\_keyboard\_lecture1, 2\_keyboard\_lecture2, 3\_keyboard\_anniekeys, 4\_keyboard\_ribbon, 1\_caster\_pot, 2\_caster\_matcase, 3\_caster\_aroundthecaster, 4\_caster\_ribbon, 5\_caster\_castingaline

<http://www.katranpress.com/resources.html> | University of Reading**Overview**

Nine films of approximately 30 seconds each in which Michael Bixler gives a brief explanation of how the Monotype keyboard and caster work

**J4.10 Queer jobs afloat** (15/12/1930)

2 minutes, b&amp;w, wmv

1022\_09.wmv

[www.britishpathe.com](http://www.britishpathe.com)**Overview**

A few seconds of a (speaking!) Linotype operator at his machine (1:30) in ship's print room. Also available without sound as *Strange jobs afloat* 908\_02.wmv.

**J4.11 Monotype portraits (aka Dots and spots)** (nd)

2 minutes, b&amp;w, wmv

1276\_18.wmv

[www.britishpathe.com](http://www.britishpathe.com)**Overview**

Basic explanation of how the Monotype keyboard and caster work. Shows the keyboard inputting information, punched spool, matrix and caster producing type. Brief shot of a portrait being printed on a hand-fed treadle press. Portrait of the head of LCC (Herbert Morrison?)

**J4.12 Three Linotype machines** (1900)

1 minute, b&amp;w, 35mm

British Film Institute

**Overview**

Single shot of three men working at Linotype machines. The earliest known footage of mechanical composition and casting machines.

**J4.13 Making sure at the Monotype works**

28 minutes, VHS

Director: R.C.B. Holton

Producer: Monotype Corporation

The University of Reading

**Overview**

One of a series of three films about Monotype hot metal systems aimed at users of Monotype (the others are *Handle with care* and *Casting good type*). All three are extremely technical and probably only of interest to those running Monotype machines or serious reserachers. This film is perhaps the most accesible of the three. It shows production of keyboards and casters at the Monotype Corporation factory. Includes an explanation of how the caster works and footage of a Supercaster casting leads and furniture.

**Summary**

Production of Monotype keyboards and casters at the Monotype Corporation factory

- Supercaster parts being made
- assembly of a caster
- assembly of a keyboard
- paper being slit and perforated for use on Monotype keyboards
- keyboard being tested

Caster in operation

- explanation of how the caster works

- spacing
- pump

Supercaster in operation producing leads and furniture

#### J4.14 *Handle with care*

24 minutes, VHS

Producer: Monotype Corporation

The University of Reading

##### Overview

One of a series of three films about Monotype hot metal systems aimed at users of Monotype (the others are *Making sure at the Monotype works* and *Casting good type*). All three are extremely technical and probably only of interest to those running Monotype machines or serious researchers. This film focuses on maintenance of the mould on the casting machine. Includes an excellent slow-motion shot of casting.

##### Summary

The Monotype composition mould

- making and testing the mould
- slow-motion shot of casting
- part by part assembly of the mould

Maintenance of the mould

- removing the mould from the caster
- taking the mould apart
- cleaning the mould
- putting the mould back together

#### J4.15 *Casting good type*

37 minutes

Producer: Monotype Corporation

The University of Reading

##### Overview

One of a series of three films about Monotype hot metal systems aimed at users of Monotype (the others are *Handle with care* and *Making sure at the Monotype works*). All three are extremely technical and probably only of interest to those running Monotype machines or serious researchers. This film focuses on maintenance of the nozzle and pump.

##### Summary

- possible problems with the type mould
- possible problems with the nozzle
- cleaning the nozzle and pump
- adjusting the nozzle and pump
- diagram explaining the pump nozzle mechanism

## J5 Electronic typesetting

### J5.1 *Composing room session of the ANPA mechanical conference (1955)*

28 minutes, VHS

Director and Producer: ITU training center

RBS v4.9 | University of Reading

##### Overview

Promotional film for the Intertype Photosetter. Shows a number of case studies of firms using phototypesetting (*St Petersburg Times*; *Milwaukee Journal*; *South Bend Tribune*; *The Daily Oklahoman*; *All Florida*) providing an excellent insight/explanation of how phototypesetting works and how it was used in its early years. Unfortunately the film is comprised entirely of slides so nothing is seen moving.

##### Summary

Phototypesetting at the *St Petersburg Times* using Filmotype and Typepro (for display type over 36 pt) as well as the Intertype Photosetter (for sizes from 6–36 pt).

The paste-up process

Making a transparency in a Photorapid machine (the 'photocopying' method)

- paste-up placed in contact with pre-sensitized paper in an exposure box to produce a paper negative
- paper negative and transparency placed into a developing unit and developed simultaneously
- after the two sheets are run through the developing unit the transparency is stripped from the paper negative
- the transparency is placed over a sheet of light sensitive paper and run through a Bruning (?) machine to make a proof of the transparency
- magnesium plate etched in a high-speed etching machine
- plate is stereotyped for printing
- discussion of the advantages of cold type for newspapers – comparison of the same ad in hot metal

9:00 The *Milwaukee Journal* – phototypesetter installed in 1954 for straight text, tabulations, 'ad guts', and commercial composition

Discussion of the advantages of photocomposition followed by a case-study of a typical colour ad

- artists layout duplicated
- copy of layout marked up
- all faces/sizes set at one machine simultaneously
- brief explanation of how the machine works
- changing letterspacing and leading
- special machine for cutting out lines to be corrected
- Diazo copy is used to make a rough paste-up
- making a photographic transparency
- make-up on a light table

Examples discussed which take advantage of the possibilities offered by phototypesetting

18:30 The *South Bend Tribune* – using the rapid etching process

- finished ad photographed as a line negative
- negative developed
- scrubbing and polishing a magnesium plate with ammonium dichromate before applying light sensi-



tive coating

- negative placed in contact with magnesium plate and exposed in a cold grid printer
- fixed plate is put into the fast etching machine (first etch to 20/1000 inch, second etch to 40/1000 inch)
- plate is washed and then stereotyped for letterpress printing

- 20:40** Photocomposition in the production of *All Florida* weekly magazine by the Perry Printing Process
- enlarging headlines
  - paste-up
  - scrubbing the plate
  - coating the plate
  - whirling the plate
  - shooting a negative of the paste-up (pages in pairs)
  - developed negatives, halftone, and strip-ins
  - stripping on glass
  - stripped-up negative complete
  - opaquing negative
  - opaqued negative and sensitised metal going into a vacuum frame
  - developing the image on metal
  - rinsing off developer
  - scumming the plate
  - another rinse
  - preparing etching bath
  - locking plate in etcher
  - etching the plate
  - plate ready for curving/mounting
  - plate backed with double-sided scotch tape
  - non-printing area built up with strawboard to produce a plate of uniform thickness
  - curving the plate with a Niagra Roller
  - plates rolled on inside of cylindrical sleeves to eliminate flat edges
  - applying double-faced scotch tape to cast-iron base plates
  - re-etching plates on the press

## J5.2 Information unlimited (1984)

25 minutes, VHS

Director: Gordon Thompson

Producer: University of Strathclyde

British Film Institute

### Overview

Department of Computer Science, University of Strathclyde. Film connected with the book *Information unlimited: the applications and implications of information technology* by Ian Somerville

### Summary

- 7:07** the Prestel videotex system
- 11:55** interactive video discs
- 13:00** Teletext systems
- 14:22** use of information technology in publishing

## J5.3 From hot metal to cold type (c.1955)

25 minutes, VHS

Producer: International Typographic Union

RBS v6.26 | The University of Reading

### Overview

Film produced for ITU members to introduce them to new 'cold type' technology. Excellent footage of various methods of using metal type to make film.

### Summary

Printing before phototypesetting:

- Linotype
- page makeup
- proof reading
- printing on a flat-bed cylinder press
- making a stereo

- 4:20** The Linotype photosetter
  - photographing negative matrices
  - removing film from the photosetter
  - developing the film
  - paste-up
  - ruling machine for making precision ruled forms
  - making a negative from the paper form
- 9:40** Various methods of preparing plates from metal type
  - Scotch Print
  - Orange Colour Key
  - Bright Type
  - Chronapress system
  - exposing negatives onto a plate
  - offset plates
  - letterpress plates
- 15:05** Comparisons of reprinting old jobs using hot metal and phototypesetting
- 18:05** New developments in phototypesetting
  - setting on a Linotype using punched tape
  - the latest electronic system (Linofilm)
  - the 'electronic' computer

## J5.4 Telegram for America (1956)

Director: Marvin Rothenberg

Producer: Walter Lowendahl

20 minutes, b&w, mpeg

Telegram1956.mpeg (17:51)

[www.archive.org](http://www.archive.org) | University of Reading

### Overview

Promotional film for Western Union Telegraph Company showing various ways of sending and receiving telegrams. Shows the typewriters which produce punched paper tape which is transmitted by telephone as electrical impulses and a message being printed out and stuck onto a telegram card. Also includes footage of a Western Union Telecar – portable telegraph station and of fax machines.

## K1 General graphic reproduction

### K1.1 Basic reproduction processes in the graphic arts (1963)

25 minutes, VHS

Producer: Gregory Cacula

RBS v5.6

#### Overview

A lot of different processes and techniques are packed into this 25 minute film meaning that none are shown in great detail and for a beginner the first viewing would probably be overwhelming. However, some of the footage is excellent and there is a useful explanation of the principles behind the main printing processes.

#### Summary

The introduction discusses the importance of the printing industry to daily life and shows business cards being printed on a treadle press and large web- and sheet-fed cylinder presses. The film then explains the principles of the four basic printing processes:

- 2:50 Relief printing
  - letterpress printing on a sheet-fed treadle press and explains the principle of the process.
- 3:40 Intaglio/gravure printing
  - shows a rotogravure press with the plate being inked, cleaned, and printed.
- 4:40 Planographic printing / lithography
  - simple demonstration of the grease and water principle to transfer ink from one sheet to another.
  - an image being exposed onto a light sensitive plate using a large camera
  - the image being 'brought out' with red ink
  - plate on the press being washed and inked
  - image transferred to rubber blanket and then 'off-set' to the paper
- 6:43 Silk screen / serigraphy
  - stencil being cut
  - stencil mounted onto screen
  - stencil backing removed
  - screen being printed
- 7:48 Diagram showing the principles of the four different processes (all require a press, a printing image, ink, and substrate)
- 8:42 Producing a 'printing image'
  - the problem of continuous tone images
  - half-tone screens being produced
  - spinning plate being treated with light-sensitive coating
  - half-tone dots
  - lino block being cut by hand
  - putting an image into a large camera to produce a halftone
- Typesetting
  - type being set by hand
  - the Lintotype machine
  - the Intertype machine
  - Linotype matrices being assembled and cast lines coming off the machine
  - Intertype matrices being set by hand and cast lines coming off the machine
  - the Monotype keyboard and caster
  - a phototypesetting machine
  - a large camera being operated showing the image in the camera and a large circular halftone screen
- 12:08 Printing ink
  - roller being inked on a flat-bed cylinder press
  - block being printed on the press
  - explanation of what comprises printing ink and what all inks have in common
- 12:44 Substrate / 'printing material'
  - various materials shown that have been printed on
- 13:12 Printing machines
  - Electric treadle press (vertical platen)
    - forme being fitted into machine
    - paper fed in
    - press running. Close-ups of the forme being inked and printed
  - Flat-bed cylinder press (sheet fed)
    - close-up of forme on bed of press
    - paper fed in and the press running
  - Web-fed rotary press
    - close-up of plates on press
    - press at work
  - Offset press – a variation of the rotary cylinder press
    - close-up of image being transferred from plate cylinder to blanket to impression cylinder
- 15:54 Methods of applying ink and different printing surfaces
  - diagram of cylinders for relief, intaglio, and offset lithography
  - various different printing presses in action
- 17:25 Flexography presses
  - close-ups of ink rollers
  - explains that this is a new process used for low-cost reprints and printing flexible packaging
- 18:00 Copperplate engraving and steel-die stamping
  - engraving a plate
  - discussion of presses used
- 18:32 Web-fed rotogravure
- 18:49 Silk screen
  - a stencil being cut by hand and produced photographically
  - two men operating an auto-inking silk screen press
- 19:15 Letterpress
  - a forme being planed and fitted into a flat-bed cylinder press
- Discussion of the advantages of the various different processes
  - electrotypes and stereotype plates
  - flong being put into a casting machine and the curved metal plate removed
  - printing a large poster by offset lithography
  - silk screening mugs and short run posters
  - printing on metal by offset lithography
  - printing on cellophane
  - intaglio printing on metal foil
  - flexography
  - printing on cloth (hot gold leaf stamping; offset lithography used for intricate designs)
  - printing magazines by rotogravure

## K2 Photography for graphic reproduction

### K2.1 *Spot news* (1937)

9 minutes, b&w, mpeg

Producer: Jam Handy Organisation

SpotNews1937.mpeg

[www.archive.org](http://www.archive.org) | University of Reading

#### Overview

Superb explanation, with diagrams, of how photographs were scanned and sent by telephone followed by a quick run through of the process

#### Summary

Sending a photograph by telephone

- photography on location
- developing the photograph in the back of a van
- fitting the photograph to the scanning machine
- image telephoned through to the newspaper
- excellent explanation of how the process works
- close-up of photograph being scanned
- negative being exposed on the receiving machine
- negative being developed

#### 8:11 Printing the image

- washing an etching
- page makeup
- stereotype mould in casting box
- press running and finished newspapers coming off the press
- newspapers being delivered

### K2.2 *Electronic transcriber* (06/10/1952)

1 minute, b&w, wmv

1309\_14.wmv

[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Machine for producing copies by 'electronic stencil'. An original is copied onto a blank 'stencil' using a 'photo-electric scanning eye'. The stencil is then attached to the drum of the 'duplicator' and copies printed. The machine prints at 500 lpi and 40 copies per minute and can copy line drawings and photographs.

## K3 Process engraving

### K3.1 *The art and technique of photo-engraving* (c.1950)

29 minutes, VHS

Director and Producer: Dudley Whittelsey

RBS v6.6 | University of Reading

#### Overview

Film made by Horan Engraving Co., New York, showing the process of line and halftone photo-engraving. Good level of detail and the only film in this list to show use of Benday tints. Narrated by David Roberts.

#### Summary

- examples of different kinds of image

- scaling an image

#### 2:19 Photography

- photographing an image through a halftone screen
- developing the image

#### 5:17 The stripper

- stripping the film from its celluloid base
- wetting the film negatives and placing onto glass
- touching up the film

#### 7:45 Preparing the plate

- cleaning the plate
- sensitising the plate by coating with bichromate of gelatin which is distributed using a whirler
- exposing the glass negative onto the plate (hardens the gelatin where light passes through)
- developing the plate
- image brought out with dye
- process for zinc plates
- image made permanent by intense heating

#### 11:27 Etching the plate

- protecting the back of the plate and stopping out areas not to be etched
- cleaning the plate
- first etch
- protecting the plate with dragon's blood
- explanation/demonstration of the acid bath
- dusting with chalk powder
- re-etching by hand

#### 16:17 Finishing the plate

- removing unwanted metal with a router
- bevelling the plate
- finishing by hand
- taking proof impressions on a hand proof press
- mounting with nails and with glue
- stamping the union label

#### 21:00 Benday tints

- stopping out areas of the plate
- inking a Benday screen
- shading machine
- transferring tint from screen to plate

#### 23:00 Four-colour process engraving

- proofs taken on a four-colour Vandercook proofing press
- progressive proofs

## K4 Stereotyping & electrotyping

### K4.1 *The electrotpe: the precision printing plate* (1954)

27 minutes, VHS

Director: Matt Farrell

Producer: International Association of Electrotypers and Stereotypers

RBS v5.5 | The University of Reading

#### Overview

Promotional film about electrotpe plates, presented by Flower Electrotypes. Excellent footage of the electrotpe process from preparation of the mould to backing the plate although without explaining how the various chemical processes work. Also

shows casting of both flat and curved stereotype plates.

### Summary

Introduction looking at the history of communication

- cave paintings
- hieroglyphs
- Greece and Rome
- illuminated manuscripts
- Gutenberg and the common press
- the industrial revolution and the rotary presses
- the electrotype
- camera halftones
- typesetting machine
- flat-bed cylinder presses

**4:07** Explanation of the electrotype process – use for packaging and advertisements. Fixing plates to flat-bed cylinder press

**6:05** Brief explanation of the electrotype process

- different chemicals required
- mould made conductive in silver solution
- mould placed in plating bath to transfer copper to the mould by electrolysis
- copper shell peeled from mould
- different sources for making electros

**8:30** Step by step look at the electrotyping process

- materials for moulds
- preheating the pattern
- heating the pattern and mould material in a moulding press
- mould and pattern cooled, under pressure, to room temperature

**11:00** Preparing the mould for the electrotyping bath

- mould is cleaned and sensitised
- mould sprayed to coat with silver
- mould attached to frame

**11:35** Electroplating

- mould and frame hung in plating tank
- Nickel plates
- plating with nickel and then copper
- tin deposit added (to bond the copper shell to the backing)
- removing mould from shell

**13:32** Backing the shell

- trimming shell and folding over edges
- filling the shell with electrotypers lead
- backing with tin foil

**15:17** Finishing the plate

- trimming the plate
- milling the back of the plate
- levelling the plate
- pulling a proof
- finishing the plate by hand
- routing away excess metal
- bevelling/mounting the plates
- trimming and squaring the plate
- final proof

**18:33** Uses of electrotypes

- assembling new plates from electros of existing plates
- printing curved electrotypes on web-fed cylinder presses (shows printing of magazines and packaging)

- curving flat plates using special rollers
- curving shells and producing centrifugally cast plates
- about the International Association of Electrotypers and Stereotypers

**22:02** Stereotyping

- arranging a number of plates together for casting a single stereo
- making a flong matrix
- casting a flat plate
- casting curved plates

**25:00** Summary: the contribution of printing to society and the part played by electrotyping

## L1 Printing technique

### L1.1 *Printing* (1946)

11 minutes, b&w, mpeg  
 Printing1947.mpeg  
[www.archive.org](http://www.archive.org) | University of Reading

#### Overview

Presented by Vocational Guidance Films, part of the Your Life Work Series. Shows hand and machine typesetting and a variety of different presses running but without any explanation of how anything works. Includes excellent footage of students training to become compositors and printers at Washburne Trade School, Chicago, Illinois.

#### Summary

The introduction discusses some of the uses of printing and its contribution to society with shots of different kinds of printing press at work, hand composition.

- 1:55 Composition
  - large composing room
  - copy marked up by a mark-up man
  - hand composition
  - Linotype composition and casting
  - Monotype composition and casting
  - galley proof
  - proof correction
  - tying up type
  - making up a forme
- 5:30 Various presses running
  - treadle press
  - automatic sheet-fed flat-bed press
  - flat-bed cylinder press
  - offset lithographic press
  - rotary letterpress
- 6:29 Make ready – pasting cut out pieces of paper onto the back of a plate
- 7:22 Students being trained at Washburne Trade School
  - hand composition
  - printing on a treadle press
  - printing on an automatic sheet-fed vertical platen press
  - flat-bed cylinder press
  - Linotype operation
  - large rotary presses

### L1.2 *Sound operator and announcer* (nd)

5 minutes, b&w, mute, wmv  
 1961\_09.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Various shots of newspapers being printed on a large rotary press including the press being started up.

### L1.3 *What do the stars foretell for you?* (aka *The stars and you* aka *Astrology – is it science or bunk?*) (05/01/1959)

5 minutes, b&w, wmv  
 1565\_10.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

News story about astrology. Includes a brief shot of sheet-fed presses printing newspapers

### L1.4 *Chins up* (21/11/1940)

2 minutes, b&w, wmv  
 1296\_19.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Story about the work of the front line services during the war. Brief shot of printing newspapers.

### L1.5 *Polish underground* (nd)

6 minutes, b&w, mute, wmv  
 1889\_05.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Includes short clips of printing on a tabletop press of hand typesetting and footage of printing on a treadle press.

### L1.6 *Election secret out* (12/01/1950)

1 minute, b&w, wmv  
 1446\_19.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Announcement of the date of the general election/ Brief shot of newspaper being printed on a web-fed printing press. This footage is taken from a silent film reel 1446\_24.wmv which shows a few seconds more of the press in action.

### L1.7 *Princess Margaret opens new newspaper office in Birmingham* (1965)

1 minute, b&w, mute, wmv  
 3142\_08.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Shows banks of Linotype machines and large web-fed press.



**L1.8 *Albert TR55* (1989)**

13 minutes, mute, VHS  
 Producer: B.P.C.C. Sun Ltd  
 University of Reading

**Overview**

Shots of a huge four-colour rotary press running.  
 There is sound but no narrative to explain the images.

**L1.9 *London on parade* (1937)**

11 minutes, b&w  
 British Film Institute

**Overview**

A film about life in London. Shows a rotary press printing newspapers very briefly at the end.

**L1.10 *Graphic communications: we used to call it printing* (nd)**

23 minutes  
 Producer: Dupont Printing in association with the  
 Graphic Arts Technical Foundation  
 University of Reading

**Overview**

Film about new technologies in graphic communication. Style was obviously more important to the film makers than substance and while there is some good footage the priority was clearly with editing the images so that they fit neatly with the jazz soundtrack rather than explaining what was being shown.

**Summary**

- setting type by telephone using perforated paper tape
- transmitting information via satellite
- separation cameraman
- printing labels
- gravure printing
- printing tablets and capsules
- printing toothpaste tubes
- phototypesetting
- students setting type by hand and looking at Monotype machines

**L1.11 *Printing on the hand press: part one – preparing the press* (c.1974)**

38 minutes, b&w, VHS  
 Producer: Institute of Bibliography, University of  
 Leeds  
 RBS v4.6 | University of Reading | University of  
 Leeds

**Overview**

First of a series of three films showing how to print on an Albion press. Part 1 includes the only footage discovered so far describing the various parts of an iron hand press and the process of dressing the tympan. Also includes a good explanation of how the tympan and frisket are used.

**Summary**

The film begins with a short introduction followed by an explanation of the various parts of the press and how it works including discussion of the following:

- |                  |                 |       |
|------------------|-----------------|-------|
| - staple         | - platen        | - bed |
| - carriage/track | - rounce        | - bar |
| - piston         | - return of bar |       |

- 4:20** Demonstration/explanation of the impression mechanism (movement of platen; elbow-joint / toggle-action) and ways to alter the strength of the impression (distance travelled by lever / adjusting stop; bar screw; packing)
- 8:00** Explanation of tympan (inner and outer), blanket, and frisket. Discussion of materials used for tympan and blankets and the use of points.
- 15:20** Demonstration of how to dress the frisket – cutting, damping, pasting, and dressing
- 19:45** The printing forme: chase, type, and furniture. Imposition: shows a 4pp half-sheet forme (whereby the same forme is printed on both sides of a sheet and then cut in half to give two copies). Explanation of how the same forme would be printed from two separate forms on a smaller press. Explanation of set-off and how it might occur.
- 25:30** Locking up the forme. Shows the use of wooden wedges and of mechanical metal quoins. Preparing a 2pp inner forme. Planing the type. Discussion of the possible reasons for a rising piece of type

**L1.12 *Printing on the hand press: part two – positioning, printing, and proofing* (c.1974)**

60 minutes, b&w, VHS  
 Producer: Institute of Bibliography, University of  
 Leeds  
 RBS v4.6 | University of Reading | University of  
 Leeds

**Overview**

Second of a series of three films showing how to print on an Albion press. Part 2 includes the only footage discovered so far of how to level the platen on an iron press. It also shows how to prepare the tympan, inking up the forme, and taking proofs.

**Summary**

Levelling the platen to ensure evenness of impression.

- 5:00** Positioning the forme on the bed of the press and securing it with Hempel (metal wedge) quoins.
- 12:20** Preparing the tympan.
- a sheet of manilla paper is attached to the tympan with dabs of adhesive in the corners
  - a sheet of paper is folded (as imposed) and laid onto the form for rough positioning
  - the tympan cover is damped and an impression taken; the water lifts the paper onto the tympan
  - the sheet is secured with printer's paste
  - points are positioned on the fold and then secured through the outer tympan
- 21:45** Inking the roller on a slab (a lithographic stone) after applying ink to the roller with a knife. Inking the forme – at an angle to avoid 'guttering'.

- 26:45** First proof impression taken
- 28:40** Discussion of damping the paper: the required level of dampness and how to test it and why paper is dampened (because hand-made paper is sized with gelatine which prevents ink from adhering to it – water adds to the bulk of the paper, which allows compression, and weakens the size both of which improve the quality of the impression).
- 43:00** Second proof impression. Sheet checked for accuracy – level pages and equal inner margins. An extra sheet of packing is added to the outer tympan. Discussion of the quality of printing in terms of depth of impression.
- Third proof impression. The sheet is turned over and positioned on the pins. Demonstration of set-off. Checking back-up and adjusting the position of the form on the bed of the press.
- 44:30** Fourth proof impression – both sides of the sheet printed. Another adjustment and a fifth proof impression taken (not shown).
- 46:30** Level of inking adjusted. Discussion of judging the level of ink on the roller (a hissing sound means a good level of inking, a sucking sound means too much ink, the ink on the slab should go from dull to shiny a couple of seconds after taking the roller off).
- 52:00** Discussion of make-ready sheets. Underlaying and overlaying. Adding some 'overlay' to the packing on the outer tympan. Another proof impression taken.

### L1.13 *Printing on the hand press: part three – printing and feeding* (c.1974)

45 minutes, b&w

Producer: Institute of Bibliography, University of Leeds

RBS v4.6 | University of Reading | University of Leeds

#### Overview

Third of a series of three films showing how to print on an Albion press. A large chunk of the film is taken up with questions/discussion which is arguably less useful than parts 1 and 2. However, part 3 does begin with an excellent demonstration of how to prepare the frisket.

#### Summary

Preparing the frisket: frisket attached; print taken onto face of frisket; frisket removed and holes cut with a razor blade and steel rule; frisket re-attached.

- 5:30** Printing with the frisket in place. Print 'run' begun for the inner forme.
- 8:40** Perfecting/backing-up. Use of a set-off sheet. Increasing inking and/or pressure to allow for the paper being drier.
- 12:00** Printing the outer forme. Keeping the same colour. Discussion of drying time. Adjusting the forme on the bed of the press.
- 18:30** General questions and discussion:
- why points are staggered
  - set-off
  - indentation of impression
  - packing material

- speed of printing on the hand press
- 'tokens' and the printer's working day
- use of candles
- apprentices 'passing out'

- 27:00** Printed a single page (as at the end of a chapter). Using a mask to cover one page. Bearer type.
- 29:30** Demonstrating the effect of using paper that is too wet or too dry. New make ready for each forme. Distributing type. Cleaning the type after printing.
- 38:40** Feeding to lay pins. Using paper without a deckle edge.

### L1.14 *The wooden printing press* (c.1974)

40 minutes, b&w, VHS

Producer: Institute of Bibliography, University of Leeds

RBS v4.5 | University of Reading | University of Leeds

#### Overview

Examines the wooden printing press and how to operate it. It is extremely thorough and is the only film in this list so far that names all the various parts of the common press and explains how it works and how to make adjustments to it. A shame that the press being used is missing its tympan frame.

#### Summary

A brief introduction to the common press and to the specific press shown in the film.

- 2:00** Examination of the various parts of the press and how it has been modified since it was first built including discussion of the following:

- cheeks	- cap	- head
- spindle	- worm/screw	- hose
- garter	- till/shelf	- platen
- carriage	- winter	- summer
- feet	- hind posts	- hind rails
- forestay	- rails	- ribs
- bed (plank)	- clamp irons	- rounce
- spit	- drum	- coffin
- press stone		

Includes an excellent explanation of the mechanism for moving the bed under the platen.

- 13:20** The operation of the press: demonstration of a two-pull print. Examines the movement of the screw and platen. Explains the purpose of the spindle and hose (but not how they work). Getting the platen parallel.
- 20:30** Demonstration of printing a single forme
- cleaning the stone
  - forme of type place on bed
  - brief explanation of components of forme
  - quoins unlocked, type planed, quoins tightened
  - ink applied with hand roller (discussion of inking balls)
- 24:50** Discussion of tympan (missing from the press shown), blanket, and galleys (also missing). Substitute packing laid on top of the forme (in the absence of a tympan). Proof taken on a sheet of damp paper.
- 29:10** Discussion of how to improve a weak print (extra packing; adjusting the head of the press; soft and hard pull or long and short pull).

- 31:35** Demonstration of lowering the head of the press by putting more packing material into the mortices between the head and cheeks.
- 35:30** Demonstrates the effect of printing the forme when not under the centre of the platen. Several proofs printed.

### L1.15 *Ten presses and how they work* (2000)

105 minutes, VHS

Producer: Duane C. Scott

University of Reading

#### Overview

Amateur production in which Duane C. Scott demonstrates ten printing presses – five tabletop presses (Kelsey, Sigwalt, Golding Official, Craftsman Superior (Pilot), Golding 'Map' Official) and five treadle presses (No.1 Pearl, No.3 Pearl, No.11 Pearl, Oldstyle Gordon, New Style Chandler & Price). Shows the different parts of the various presses and how to print on them. Unfortunately on a number of occasions the machines drown out the presenter. Includes unusual footage of a treadle press operated by an electric motor, various treadle press throw-off systems and of different kinds of gauges and quoins.

#### Summary

Introduction

- 2:00** Kelsey tabletop press
- the main parts of the press
  - fitting rollers
  - the removable bed
  - inking the press
  - fitting tympan paper
  - fitting the chase
  - taking a proof
  - setting gauge pins
  - adding packing
- 15:07** Comparing the Sigwalt and Golding Official tabletop presses
- 19:33** Sigwalt tabletop press
- fitting rollers
  - inking
  - fitting tympan paper
  - fitting the chase
  - taking a proof
  - using twin-grip gauges
- 27:52** Golding Official tabletop press (6 × 9 inches)
- fitting rollers
  - inking
  - fitting tympan paper
  - fitting the chase
  - taking a proof
  - using twin-grip gauges
  - printing
- 37:10** Craftsman Superior tabletop press
- fitting the chase
  - printing
- 45:17** Golding 'Map' Official tabletop press (8¼ × 12½ inches)
- printing
  - fitting the chase
  - explaining how the mechanism works (unusual
- because the bed and disc move to the platen
- 53:27** Various gauge pins and how they work
- twin-grip gauge pins
  - adjustable gauge pins
  - Macgill gauge pins
- 57:38** Different kinds of quoins
- Whippersham quoins
  - Nottingham quoins
  - English quoins
  - Sam quoins
  - Challenge quoins
  - Counters
- 61:55** No.1 Pearl Press (5 × 8 inches, 1890)
- shows the various parts of the press and the press running
- 69:55** No. 3 Pearl Press (7 × 11 inches)
- fitting the chase
  - running the press – close-ups of the counter running and of the shaft connected to the treadle turning the gears
- 74:35** No.11 Pearl Press (7 × 11 inches)
- 81:35** Oldstyle Gordon (7 × 11 inches) – missing its treadle
- 87:31** New Style Chandler & Price (8 × 12 inches)
- press shown running under motor power (¼ horse variable speed motor)
  - removing the chase
  - Reddington counter

### L1.16 *The Meihle vertical letterpress A* (nd)

28 minutes, VHS

Producer: Deluxe Check Printers

University of Reading

#### Overview

One of a series of three films about how to maintain a Meihle V50/V50X vertical letterpress machine. These films go into great detail and are highly technical. As such they are probably only of any use to owners of a Meihle V50 machine although they do give an excellent impression of how many different components have to be working perfectly, and in harmony with one another, on a powered flatbed cylinder press with automatic inking and feeding. This film concentrates on the vacuum and airblast system which is used in sheet separation and handling and in the operation of the impression cylinder. By the end of the film you should be able to describe the airblast and vacuum system, check for proper operation, perform pump flushing procedures, adjust control valves and the cylinder vacuum shoe, and clean the vacuum and airlines! Detailed and highly technical, this is probably only of any use to owners of a Meihle V50 machine.

#### Summary

- system components – described the parts of the press relating to vacuum and airblast and what they do
- pumps
- filter replacement
- pump flushing
- vacuum test
- vacuum relief adjustment
- cylinder vacuum shoe problems



- sheet handling problems
- feeding problems

### L1.17 *The Meihle vertical letterpress B* (nd)

101 minutes, VHS

Producer: Deluxe Check Printers

University of Reading

#### Overview

One of a series of three films about how to maintain a Meihle V50/V50X vertical letterpress machine. These films go into great detail and are highly technical. As such they are probably only of any use to owners of a Meihle V50 machine although they do give an excellent impression of how many different components have to be working perfectly, and in harmony with one another, on a powered flatbed cylinder press with automatic inking and feeding. This film concentrates on the grippers and feeder mechanism.

#### Summary

- cylinder brush adjustment
- cylinder latch adjustment and trip diaphragm replacement
- gripper bar height check
- gripper bar height adjustment
- adjustment of individual grippers
- Meihle cylinder brake band replacement and adjustment
- checking the upper and lower cylinder stop blocks
- safety pin, collar, and pawl rod clearances
- transfer table adjustment
- side guide adjustment
- feeder adjustments (feeder platform lock; pile guides;
- feeder table; separator frame; paralleling arms; feeder arm travel; stop adjustment)

### L1.18 *The Meihle vertical letterpress C* (nd)

92 minutes, VHS

Producer: Deluxe Check Printers

University of Reading

#### Overview

One of a series of three films about how to maintain a Meihle V50/V50X vertical letterpress machine. These films go into great detail and are highly technical. As such they are probably only of any use to owners of a Meihle V50 machine although they do give an excellent impression of how many different components have to be working perfectly, and in harmony with one another, on a powered flatbed cylinder press with automatic inking and feeding. This film has three sections on the press' delivery system and also covers the forme and distributor carriages, the ink fountain and plate, and the operation of the press.

#### Summary

Meihle press delivery system part 1

- objectives
- the primary components (driving linkage; delivery arm assembly)
- checking for proper operation of the system

- delivery drive adjustments (removing excess play; paralleling arms; setting delivery stops)

#### 13:00 Meihle press delivery system part 2

- objectives
- individual grippers
- gripper assembly height

#### 26:51 Objectives

- adjusting gripper bite
- adjusting sheet release
- set gripper clearance and gripping action

#### 35:30 Meihle press forme and distributor carriages

- objectives
- common carriage components
- forme carriage components
- distributor carriage components
- carriage inspection
- roller box check
- forme carriage oscillator check
- carriage lock check
- carriage parallelism check
- carriage operation check

#### 51:12 Meihle press ink fountain and plate

- objectives
- primary components
- ink plate inspection
- jacks inspection
- ink fountain inspection (paralleling fountain)

#### 73:48 Objectives

- feeder setup
- transfer table setup
- delivery setup
- feeder pile height setup
- delivery pile height setup
- packing change position

## L2 Digital & electronic printing

### L2.1 *Electronic work assembly for the graphic designer* (1985)

26 minutes, VHS

University of Reading

#### Overview

Film made by the Society of Industrial Artists and Designers (SIAD) explaining the new computer technology available to designers. Shows two examples of designing using interactive video display terminals: the CrossField Pro Edit and the Xenotron Master Series. An interesting record of what page layout software (and computer mice) were like before the Apple Macintosh had established itself.

#### Summary

Making up pages on the Pro Edit

- cursor, menu and HD colour monitor.
- setting up a grid
- placing and manipulating images and text

#### 15:15 Making up pages on the Xenotron

- hand drawn page layouts
- setting up a grid
- placing and manipulating images and text

#### 24:00 Advantages to the designer

## L2.2 *The Indigo E-Print 1000: the world's first digital-offset colour press* (c.1993)

11 minutes, VHS

RBS v5.10 | St Bride Library

### Overview

A promotional film for the Indigo E-Print 1000 four-colour digital press. Includes useful diagrams/schematics of the components of the press and how it works.

### Summary

The film opens with images of cave paintings, hieroglyphics, hand presses, and early powered presses followed by large web-fed offset machines printing newspapers and magazines, people working in pre-press, and scientists and engineers (the voice over announces that the E-Print 1000 has been developed for 15 years – over 2000 man hours of design, research, and testing).

A person working at the work station of the Indigo. Close-up of the pneumatic sheet feeder and printed sheets coming off the press. The 'engine' of the machine and a schematic of how it works (explaining the transfer of images from the laser imager to the image cylinder onto the blanket and then onto the impression cylinder).

Close-up of the impression cylinder retaining a single sheet for sequential CMYK printing (actual order is YMCK), feeding the sheet into the duplexer and printing the second side. Schematic of this process showing the build-up of an image on one set of cylinders for all four colours.

Various shots of the press running while the advantages of the Indigo Press are explained: no fusing or drying steps; can fold and wire stitch booklets up to 100pp; overriding automatic colour balancing on-screen; no specialist printing skills required; 6-colour capability; easy to fit ink cartridges; accepts all standard industry standards. 'The results: breathtaking digital colour printing of graphic arts quality'.

Colour halftone printed on the Indigo using 'electroink' compared to offset litho. Black text compared to powder xerography.

CGI 3d view of the machine. The outside is taken away revealing the various cylinders. Shows progression of a job from laser to image cylinder, image on blanket cylinder, yellow image, yellow + magenta image, yellow + magenta + cyan image, yellow + magenta + cyan + black image. Finished print coming off press.

Cut to finished booklets coming off the press. Shows a graph (entirely made up) comparing the prices of short-run printing by off-set lithography and on the Indigo. Finishes with a final shot of the machine.

## L2.3 *Drupa '95 'communication for the global village'* (1995)

34 minutes, VHS

Producer: Farinacci & Associates

RBS v10.2

### Overview

Examines the equipment on offer at the world's largest conference for the printing and publishing industries and interviews executives from some of the leading companies involved with the conference about the future of printing. Useful as a record of what was cutting edge in 1995 and what was thought to be the future of printing at that time.

### Summary

- flat-bed cylinder press
- offset litho press

Business executives talking about what's new in the world of print – digital platemakers, digital presses, and the desk top publishing computer revolution.

- Hans Peetz-Larsen, President of Heidelberg USA
- Robert Green, Product Marketing Manager, Adobe
- Terry Ray, Executive Vice-President, Wace
- Wendell Smith, Customer Satisfaction Manager, Baldwin
- Jeffrey Thames, Territory Manager, Purup

Digital systems

- scanners
- cameras
- image manipulation (pre-press)
- proofing
- plate generation
- printing
- binding

Discussion of the breaking down of boundaries between design, prepress, and printing and the green revolution (dry film and water-based chemistry) reducing environmental impacts (and costs) followed by various printing and binding machines in action.

William Lampeter, President, Printcom on the changing nature of the industry: mergers/collaborations between large companies

A video tour of Drupa '95 looking at prepress

- Kenn Todd, President, Wace USA on prepress image management
- Terry Ray, Executive Vice-President, Wace on who does the best job of integrating systems
- Robert Green, Product Marketing Manager, Adobe
- Lisa Wellman, Managing Director, Apple Computer
- Chuck Osterlein, Vice President, 3M Printing and Publishing Systems
- Richard Northrup, Managing Director, 3M Printing and Publishing Systems
- computer-to-plate technology
- prepress from trade shop to printer
- making plates without 'stripping' – machines that produce punched plate-ready film
- Bruce Jorgensen, President and COD, X-Rite
- desktop colour management
- Lee Andrews, Senior Vice President Marketing, Westvaco
- the future of print

- short-run colour personalised printing
- advantages of the E-print 1000 (no film, plates, or make ready; on demand printing; paper and solvent saving; automatic blanket cleaning)
- Ralph Box, Executive Vice President Sales, Muller Martini Corp
- automatic make ready systems

## L3 Lithography

### L3.1 Looking at litho (nd)

23 minutes, DVD

Producer: Alabaster Passmore & Sons

University of Reading

#### Overview

Shows the production of a calendar by four-colour offset lithography including a good demonstration of how film and plates were made.

#### Summary

Making positive halftone film

- taking the photograph for the front cover of a calendar
- measuring highlight and shadow densities
- explanation of photographing a transparency through filters to produce CMYK plates
- making corrections before exposing the separation negatives
- making a low-density colour mask to colour correct the transparency
- making separation negatives with red, green, and blue filters in a PMT camera
- separation negatives photographed through a screen in a PMT camera to make halftone positives
- retoucher checking dot sizes
- protecting part of the film with red cellulose paint
- etching the film
- making adjustments to the film by hand

#### 8:27 Platemaking

- ruling up a layout sheet
- attaching clear foil with tape and cleaning with anti-static paste
- first positives laid on foil and secured with transparent tape
- other positives registered on top, each on their own sheet of foil
- anodised aluminium plate secured to a whirler, washed, and coated with gum dichromate
- plate placed in a vacuum frame in contact with the screen positives
- plate exposed to art light, hardening the plate in non-image areas
- etching the plate with deep-etch solution
- cleaning the plate with spirit
- tape/dust spots and blemishes painted out using stop-out solution
- laquer base rubbed into plate
- inking solution rubbed into plate and dusted with French chalk
- removal of hardened gum coating
- desensitising plate with gum arabic

#### 13:20 Making proofs on an offset proofing press

- proofing the cyan plate
- cleaning the inking rollers
- charging the rollers with yellow ink
- printing the yellow plate onto the cyan proof
- printing the black plate onto the other colours

#### 15:20 Printing the plates

- diagram of a two-colour printing press
- cleaning the plates
- taking a micrometer reading of a plate
- black plate marked up for registration
- black plate fitted to cylinder
- loading paper into the press
- magenta ink being put into the ink duct
- washing the gum arabic off the plate and removing the inking solution with turpentine
- machine printing a magenta and black impression: shots of blankets, feeding in sheet, and delivery of printed plates
- yellow ink being put into the ink duct
- controlling the level of inking with duct keys
- position of blue and yellow plates adjusted
- shots of presses
- finished calendar being packed and dispatched

### L3.2 Rolf Harris on lithography (2002)

16 minutes, VHS

Director and Producer: Helen Nightingale

University of Reading

#### Overview

Excerpt from a programme on Toulouse Lautrec presented by Rolf Harris showing printing a four-colour poster by lithography at the Curwen Press. Originally broadcast as one of the BBC's 'Rolf on art' series.

#### Summary

- grinding the surfaces stone on stone
- transferring an image onto the surface of the stone with 'dragon's blood' paper
- painting on the stone with tuch
- preparing images for photolithography
- printing on a flat-bed offset press

### L3.3 Lithography (1940s)

9 minutes, , b&w, mute, wmv

1805\_07.wmv

[www.britishpathe.com](http://www.britishpathe.com)

#### Overview

Shows the process of printing from stone and zinc plates. Some good footage but completely misses the chemical part of the lithography process.

- preparing the surface of a stone
- drawing directly onto the stone
- wetting and inking up the stone
- putting the stone onto the bed of a hand-operated scraper press and pulling a print
- drawing original artwork
- fitting a glass plate into on a large PMT camera
- removing the lens cap – shows the artwork and camera with the screen inbetween
- retouching the glass plate
- exposing the glass onto a zinc plate

- fitting a plate onto an offset cylinder press
- the plate being printed

## L4 Gravure

### L4.1 Magazine printing process (1968)

3 minutes, wmv  
3338\_01.wmv  
www.britishpathe.com

#### Overview

Includes a number of shots of web-fed magazine printing, presumably rotogravure.

### L4.2 Photogravure: an archaeological research (2007)

64 minutes, DVD  
Director and Producer: Jan Pettersson  
University of Reading

#### Overview

Through step-by-step explanation of the photogravure process. Excellent footage of inking and printing intaglio plates.

#### Summary

Sensitising

- pigment paper cut to the size required for the positive
- sensitising solution
- cleaning the plexiglass
- sensitising the pigment paper
- laying the sensitised pigment paper onto the plexiglass
- drying and storing the pigment paper

#### 4:43 Preparing the plate

- cutting and cleaning the copper plate
- mixing the chalk
- brushing chalk paste onto the plate
- burning in the paste
- removing the chalk

#### 7:41 The positive and the screen

- different kinds of positives and screens

#### 8:39 Exposure, lay down, development and drying

- plate put into degreasing solution
- plate rinsed with cold water and put into 25% alcohol solution
- exposing the screen onto the pigment paper in a vacuum frame
- exposing the positive onto the pigment paper
- pigment paper put into 25% alcohol solution
- pigment paper laid down on copper plate
- drying the pigment paper
- copperplate and pigment paper placed into 99% alcohol solution and then into a tray of hot water
- removing the pigment paper
- developing the plate
- drying the plate with a fan or in a whirler

#### 18:46 Preparing the plate for etching

- making corrections to the plate with a magic marker
- protecting the back of the plate with contact paper

- protecting the edges of the plate with masking tape
- making handles for the plate with packing tape

#### 21:20 Etching procedure

- checking the strength of the acid
- preparing acid baths and stop bath
- etching the plate
- removing the gelatine
- drying the plate
- polishing the plate
- making corrections to the plate with a roulette engraving tool
- cutting the plate to size
- bevelling the plate
- burnishing the edges of the plate

#### 31:54 Printing the plate

- preparing the paper
- setting up the press
- mixing the ink
- different kinds of fabric for cleaning the plate
- inking up the plate
- wiping the plate
- cleaning the edges of the plate
- registering the paper and the plate
- printing on a powered flat-bed cylinder press

#### 45:45 Printing a four-colour photogravure

- inking and wiping the plates
- registering the paper
- registering and printing successive plates: yellow (orange in this case), magenta, cyan, and black on a powered flat-bed cylinder press

### L4.3 Early rotogravure magazine production in Watford, England at Sun Engraving and Rembrandt Printers (late 1940s)

14 minutes, b&w, DVD  
Producer: Richard Withers  
University of Reading

#### Overview

Film showing people at work at a variety of tasks from platemaking to distribution. Unfortunately the sound on the film is only music and without a narrative it is almost impossible to know what is happening unless you are already familiar with the 1940s rotogravure magazine production.

## L5 Screen printing

### L5.1 Bringing the senses back to the book (2007)

10 minutes, DVD  
Tara Publishing

#### Overview

Contemporary silk screen book production in Chennai, India by C. Arumugam and his team for Tara Publishing. Shows the making of *A night life of trees* including excellent footage of making printing screens from film, printing the pages of the book and hand binding.

#### Summary

- looking at the original artwork for the book

- manipulating artwork on screen
  - fixing transparencies to light-sensitive film
  - coating the screen with a light-sensitive layer
  - the treated screen is exposed to light
  - washing out the image areas
- 4:00** fixing registration points for the paper
- printing a page in three colours
  - printing other pages
- 6:00** collating pages
- hand sewing
  - making the covers and casing-in by hand
- 8:28** comparison of the book in various stages of completeness
- other books produced by Tara Publishing

## L8 Minor printing processes

### L8.1 *Pen-ruling: a vanishing craft* (1985)

15 minutes, VHS

Director and Producer: Pauline Spiegel

RBS v5.4 | University of Reading

#### Overview

This film shows Bill Caputo (a paper ruler for over 50 years, having learned the trade at the age of 16) producing multi-coloured legers on a 1925 pen-ruling machine in a loft in downtown New York which he shares with two other paper rulers. It explains the process extremely well in a relatively short time and includes some fantastic shots of the machine in action. This is one of only three films discovered so far that feature pen ruling and the only one that covers it any depth.

#### Summary

The film opens with a shot of a large pen-ruling machine, close-ups of some pens and examples of various forms and legers followed by shots of the machine in action and Bill choosing pens from a cabinet full of pens of various sizes.

Setting up the machine

- cutting paper to size using on old Seybold guillotine
- loading paper into the machine
- changing the gears on the machine which regulate the paper feeder and control the timing and spacing of sheets being fed into the machine
- putting pens into clamps on a beam running across the width of the machine
- adjusting the pens with tweezers to match the copy
- putting in split pens (for ruling head lines) onto a second beam
- adjusting the pressure of the pens against the paper
- adjusting the strings (these run on rollers to keep the paper in place under the pens and need to be adjusted to make sure they don't interfere with the pens).
- ink soaked threads of yarn put onto the machine – one for each pen (the ink then runs down the groove in the pen)
- ink soaked flannels are laid on top to keep the

threads charged with ink

- cleaning the pens to make sure the ink is flowing
  - sandpapering the bottom of the pens to give a clean surface
  - yarn added for the second beam (red ink for the head line printing)
- 8:25** Running the machine
- the mechanical feeder lifting sheets of paper onto tapes which guide the sheets forward onto the cloth which carries it under the pens
  - sheets being carried through the machine and dropping into the collecting bin
  - flannels kept wet by adding more ink
- 9:35** Second printing – the paper is turned through 90 degrees to rule the vertical lines
- new pens fitted into the beam to make columns for book-keeping figures
  - changing the gears which control the rise and fall of the beams (thereby controlling when the pens make contact with the paper)
  - yarn and flannel added
  - a second colour is put onto the same beam – this time the yarn is tied to the pens using tweezers.
  - the process of fitting pens is repeated for the second beam
  - paper running through the machine and a proof is checked
  - close-up of the pens rising and falling to print lines in the correct place on the page

### L8.2 *Engraving: the touch of class* (c.1990)

9 minutes, VHS

Producer: The Engraved Stationery Manufacturer's Association

RBS v6.13 | University of Reading

#### Overview

Promotional film extolling the virtues of engraved / embossed stationery. Short, inaccurate, historical overview followed by modern processes.

#### Summary

- historical overview
- modern engraving
- photo-engraving and hand tooling
- embossing
- debossing (indenting into the paper)
- possibilities and uses of engraving and debossing

### L8.3 *BESA* (c.2000)

7 minutes, VHS

Producer: BESA

University of Reading

#### Overview

Short advertising movie for BESA (British Engraved Stationery Association) extolling the virtues of engraved stationery. Shows hand- and machine-engraving, a die-stamping press, and producing dies by photo-engraving.



### L8.4 *Engraved stationery, manufacturing, foil stamping, and embossing* (1991)

17 minutes, VHS

Producer: Graphic Arts Education and Research Foundation

University of Reading

#### Overview

Explores intaglio processes used in advertising, business, and printing including hand and machine engraving, an excellent explanation of photo-engraving, embossing and debossing and foil stamping. Narrated by Ronald W. Ruggles Snr.

#### Summary

Inexplicably the film opens with shots of inking with inking balls and printing on a common press before looking at different ways of making intaglio plates

- hand engraving
- inking the plate
- embossing press
- engraving with a pantograph
- etching

Photo-engraving

- photographing original artwork onto a sensitised plate
- exposing the plate in a vacuum frame
- developing the plate
- etching (testing plate produced first)
- electroplating bath

Embossing and debossing on a die stamping press

- male and female dies
- different styles of embossing
- production of an embossed card (making the counter (mail die); positioning guide pins)
- debossing

Printing engravings

- inking the plate
- cleaning the plate
- printing
- different kinds of ink

Foil stamping

Engraving and embossing papers

### L8.5 *The art of embossing* (nd)

15 minutes, VHS

Producer: Strathmore Paper Company

University of Reading

#### Overview

Three case-studies of design jobs using embossing from concept to finished product. The film shows hand-engraving embossing dies, exposing sensitised brass plates (using the same film separations as the printing to ensure registration of the embossing and printing), a 'squeeze impression' (proof of an embossing die), and an embossing machine running.



## ***Artistic aspects***

### **P History of the book**

- P1 History of the book
- P2 Manuscripts & early printed books
- P3 History of the Bible
- P5 Private presses

### **Q Illustration**

- Q2 Book illustrators

### **R Printmaking**

- R2 History of etching & engraving
- R3 History of wood block printing
- R6 Etching & engraving technique
- R7 Wood block printing technique
- R8 Artistic lithographic technique
- R9 Silkscreen technique

### **S Graphic design**

- S1 History of graphic design
- S6 Typographic design

### **U Printed products**

- U1 Posters
- U3 Greetings, post & playing cards
- U4 Maps, charts, & globes
- U5 Ephemera
- U7 Security printing

## P1 General history of the book

### P1.1 *Making books* (1944)

11 minutes, b&w, mpeg

Producer: Encyclopaedia Britannica Films

MakingBo1947.mpeg

www.archive.org | University of Reading

#### Overview

This film shows a basic overview of book production using Linotype and typesetting and letterpress printing. Worth watching for the short section which shows taking an impression of a forme in wax to make a mould used for electrotyping.

#### Summary

- brief explanation of typesetting on a Linotype machine
- making up pages in galleys
- putting pages of type into a forme, locking it up, and planing it
- taking a wax impression of the forme
- making an electrotype from the wax mould
- cutting the electrotype plate into separate pages

4:47 make ready on the bed of a flat-bed cylinder press which prints both sides of the paper (two beds)

- various shots of the press running

6:37 various stages of machine bookbinding

- folding
- gathering
- sewing
- trimming
- making cases
- stamping gold leaf onto the covers
- casing-in

### P1.2 *Books* (1940s)

6 minutes, b&w, mute, wmv

Producer: British Instructional Films Ltd

1621\_02.wmv

www.britishpathe.com

#### Overview

Sheets being printed, folded and sorted. Sheets cut and formed into sections. Sections collated by hand and bound on a hand-fed machine, books guillotined. Machines lining and backing books. Cases made and printed. Hand-fed machine puts cases and book-block together. Jackets added by hand.

### P1.3 *Books by the billion* (18/05/1931)

3 minutes, b&w, mute, wmv

910\_24.wmv

www.britishpathe.com

#### Overview

Finishing machines, web-fed rotary presses.

### P1.4 *The march of the millions* (10/03/1932)

2 minutes, b&w, wmv

1586\_17.wmv

www.britishpathe.com

#### Overview

Begins with shots of book printing on a rotary letterpress machine and ends with shots of coins being produced at the Royal Mint.

### P1.5 *Printing of the Red Cross international convention book* (1956)

1 minute, b&w, wmv

2826\_14.wmv

www.britishpathe.com

#### Overview

Short clip of printing the Red Cross international convention book on a rotary press.

### P1.6 *Book bargain* (1937)

8 minutes, DVD

Director: Norman McLaren

GPO film unit, b&w

British Film Institute | University of Reading

#### Overview

Production of the London Telephone Directory at HM Stationary Office Press. Gives lots of figures for how much paper and ink is used each year. Includes a little explanation along with shots of the machines which are often slowed down to show what is happening.

#### Summary

- new reels of paper being loaded onto rotary presses
- ink being poured into the duct
- press running (some explanation)
- electric bundler
- sections being placed into a gathering machine
- trimming back edge
- roughing the spine for gluing
- gluing
- gauze added to spine
- gluing on the cover
- creasing the cover
- sticking ads on the front by hand
- guillotining
- printing ads on the spine
- shows London's first telephone directory

### P1.7 *Eden Grove: offset printing a book* (11/05/85)

27 minutes

Director: Sue Crockford

British Film Institute

#### Overview

The first issue of Channel 4's 'Print it yourself' series at Eden Grove, an adult literacy group in London. Introduces the women in the literacy group who have published their own books.

- producing illustrations

- typing up the text
- discussing typesetting decisions

- 12:54** Typesetting on a computer
- printing galleys
  - proof reading
  - paste up – producing layouts by cutting and pasting galleys and illustrations
  - imposition
- 17:04** Making negatives on a process camera and painting out blemishes
- plate making machine
  - developing the plate
  - printing by offset lithography
  - collating, binding, gluing and adding the cover in a single machine
  - guillotining
- 20:45** Celebrating the launch of the book

## P1.8 Cover to cover (1936)

19 minutes, b&w, VHS  
 Director: Alexander Shaw  
 Producer: Paul Rotha  
 British Film Institute

### Overview

After a short historical introduction and brief interviews with a number of authors this film shows the production of *Mountain Journey* by David Brown (both the book and its author are fictitious).

### Summary

- cave paintings, hieroglyphics, the alphabet
- manuscripts
- inking with inking balls and printing on a common press (a single page of the *Canterbury Tales*)
- authors (Somerset Maugham; Rebecca Weston); Julian Huxley; David Brown – finishing the manuscript of *Mountain Journey*)

- 6:58** The book goes to the printers
- specimen pages pulled on a hand press
- 7:40** Esparto grass, wood pulp and rags in papermaking
- 8:50** Monotype keyboarding room
- Monotype casting
  - marking up galley proofs
  - correcting galleys (Linotype!)
  - pages imposed into formes
  - formes locked onto bed of press
- 10:30** Shots of printing on flat-bed cylinder presses
- 12:00** Tipping in illustrations
- Machine binding
- Various people reading ('Sapper', T.S. Eliot, A.P. Holmes)
- Different kinds of books

## P1.9 Gesamtansicht der Fabrik (1911)

6 minutes, b&w, mute, 35mm  
 British Film Institute

### Overview

Short film, in German, about book production. Unfortunately the picture quality is so poor it is difficult to make out what is being shown.

### Summary

- Die Ankunft des Papiers in der Fabrik und der Antrieb der Druckmaschine – paper being delivered and the book being printed
- Das Falzen – folding
- Die verschiedenen Lagen, die den Band bilden werden automatisch kollationiert – machine gathering the sections
- Das Heften – stapling
- Das Beschneiden – trimming
- Der Rücken des Bandes wird mit Hilfe von Leim und einem Streifen Leinwand befestigt – gluing a strip of gauze onto the spines
- Die Anfertigung des Umschlagdeckels – making the case
- Die Vergoldung des Titels – adding gold leaf by hand
- Das Einbinden – casing in
- Verpackung und Expedition – packaging and dispatch

## P1.10 Signpost: the story of the book: paper and print (1964)

21 minutes, VHS  
 University of Reading

### Overview

A basic overview of contemporary book production at Butler & Tanner printers made by the BBC. Shows Monotype composition and casting, letterpress printing, and machine finishing. Demonstrates (rather unconvincingly) hand composition and printing on a common press.

### Summary

The introduction compares a manuscript to a contemporary printed book and shows potato cut printing and discusses block books and the invention of printing by Gutenberg.

Early printed books

- hand typesetting
- locking up a forme of type
- inking using ink balls
- printing a two-pull impression on a common press

- 13:02** Contemporary book production
- monotype keyboard and caster
  - galley of type being printing on a proofing press
  - tying up type
  - planing and locking up a 32pp forme
  - printing on a sheet-fed flat-bed cylinder machine
  - folding machine
  - gathering machine
  - sewing
  - trimming
  - casing-in

**P1.11 The well-built book: art and technology**

(1990)

28 minutes

Producer: Book Manufacturers' Institute

RBS v5.12

**Overview**

A well-built examination of contemporary book production using plates made from film and printed by offset lithography.

**Summary**

Introduction: cave paintings, clay tablets, and hieroglyphs, through to early books and the Gutenberg bible and then modern presses and modern books

- diagrams of signatures, collation to book block, binding, and casing
- selecting paper, ink, and other materials for various kinds of book

Introduction

- photographing pages to make a negative film (explanation of halftones; scanning to generate CMYK negatives)
- stripping (positioning negatives onto a flat)
- exposing the flat onto a plate

Plate making

- belt press – a web-fed press designed to produce an entire book in a single pass – paper is printed both sides, slit into ribbons, folded and cut into signatures which are collated on the press
- diagram of a typical four-colour blanket to blanket web press
- diagram of a 'printing unit' from above the press
- computer controls on press
- a press in operation (web of paper feeding in; printing; drying; cooling; binding)
- a sheet-fed press in operation (sheets fed in; printing; guillotining)

Binding

- a mechanised bindery (gathering; sewing; adhesive binding (milled and unmilled); rounding; adhesive applied; gauze attached; paper liner and head bands; production of cover; foil blocking; caseing in; quality control)

- machine binding

- 3:20 A step-by-step explanation of the process of making a manuscript
- preparation of parchment (soaking; removing hair; stretching on a frame, scraping, and polishing)
  - cutting parchment into sheets and gathering into sections
  - discussion of preparing guides

- 7:38 The copying
- marking signatures
  - discussion of rubrics

- 11:20 The illumination

- 19:12 The binding (sections sewn to ribs; rounding the back; gluing on a leather cover)

- 24:15 The library

**P2.2 A world inscribed: the illuminated manuscript (1998)**

24 minutes, VHS

Producer and Director: Kathleen McDonough

RBS v2.14

**Overview**

Good quality images in this film examining manuscript production from the perspective of the scribe, describing how a scribe might have lived and worked. Includes a brief shot of a pull being taken on a common press.

**Summary**

The work of a scribe

- cutting the nib of a quill
- writing the text
- making corrections

Discussion of the book trade

- book production for profit
- renting books to students by signature
- commissioning new books

Demonstration of adding gold leaf to a manuscript

The demise of the scribe – a pull being taken on a common press

**P2.3 The making of a Renaissance book (1969)**

22 minutes, b&amp;w, DVD

Director: Dana Atchley

Producer: American Friends of the Plantin-Moretus Museum

RBS v4.2 | University of Reading

**Overview**

A recreation of renaissance printing methods based on the collections in the Plantin-Moretus Museum and the English translation of Plantin's *Dialogue on printing* of 1567 provide the basis for the film. Good overview of 16th century typesetting and printing techniques without doesn't have the level of detail and in depth explanation of some other films. Available to buy from the Book Arts Press: [www.rarebookschool.org](http://www.rarebookschool.org)

**Summary**

- hand-engraving a punch
- taking a smoke proof

**P2 Manuscripts & early printed books****P2.1 The medieval manuscript: art and function (1986)**

30 minutes, VHS

Producer: Audiovisuele dienst K.U. Leuven

RBS v2.5

**Overview**

Although this film is about manuscripts it makes regular comparisons to current methods of printing and binding and includes footage of phototypesetting and offset lithography.

**Summary**

Contemporary book production

- phototypesetting (keyboard; paper tape; camera)
- offset lithography press

- striking a matrix
- diagram of a hand mould
- casting type
- dressing the type

**10:40** Sizes of type for text and display and different type styles

**11:45** Hand composition of type

- placing lines of type into a galley
- tying up the type
- imposing pages in a chase using wooden wedge quoins
- placing the forme onto the bed of the press

**14:45** Description of the various part of the printing press

- |                |           |           |
|----------------|-----------|-----------|
| - cheeks       | - feet    | - head    |
| - winter       | - spindle | - hose    |
| - nut          | - stud    | - platen  |
| - bar          | - stone   | - coffin  |
| - corner irons | - tympan  | - frisket |
| - ribs         | - spit    | - rounce  |

**16:30** inking with ink balls

- positioning the paper to points
- taking a two-pull impression

**18:15** Correcting proofs

- Correcting mistakes in typesetting
- Explanation of the working day in Plantin's press with views of printing in the press room.

## P3 History of the Bible

### P3.1 *The World's largest bible* (16/02/1931)

1 minute, b&w, wmv  
1026.02.wmv  
www.britishpathe.com

#### Overview

Includes a short clip the special printing press that was used to make it

## P5 Private presses

### P5.1 *Beyond words: the marriage of art and literature in bookmaking* (1994)

28 minutes, VHS  
Director and Producer: Anita Saewitz  
RBS v11.1

#### Overview

A short survey of the history of artists books is followed by interviews with a number of people who have worked with publisher Vincent Fitzgerald: Walter Bareiss (book collector), Mark Beard (artist), Bob Blackburn (printer), Lee Breuer (playright), Riva Castleman (curator), Michael Feingold (writer), Jon Goodman (printer), Priscilla Juvelis (book dealer), Jerry Kelly (calligrapher), David Mamet (playright), Zahra Partovi (binder), Robert Rainwater (curator), Dorna Stein (curator), Judith Turner (artist), Marjorie Van Dyke (printmaker), Susan Weil (artist), and Paul Wong (papermaker). Includes footage of soft ground etching, and printing on an intaglio press and a Heidelberg flat-bed cylinder press.

### P5.2 *Arion Press* (1999)

44 minutes, VHS  
Producer: C-Span  
RBS v11.3

#### Overview

TV programme visiting the Arion Press in San Francisco. Founder Andrew Hoyem is interviewed about the origins and scope of the Press and of the McKenzie and Harris typefoundry. Book production, from handsetting to letterpress printing, at the Press is shown. An interesting insight into modern fine press printing and publishing (see also P5.3)

#### Summary

Andrew Hoyem talks about the history and scope of the Arion Press. Shots of the equipment they use – a Monotype keyboard and caster, Thompson caster, flat-bed cylinder press and Albion press.

Various tasks relating to typesetting are shown:

- inserting leads into a form
- handsetting
- a large forme being taken out of the press
- layout of a California case
- cleaning a forme of type

The McKenzie & Harris typefoundry

- alloy pigs
- packets of foundry type

More footage relating to typesetting

- Sumner Stone working on an initial letter for the Arion Press lectern bible (drawing and working on screen)
- a perfunctory explanation of the Monotype keyboard and caster
- proof being taken on a proofing press
- handsetting

Printing on a Miller 2-colour cylinder press

- the press being opened up
- the press in operation

### P5.3 *Arion Press* (2001)

16 minutes, VHS  
Producer: A&E (US cable network)  
RBS v11.5

#### Overview

TV programme visiting the Arion Press in San Francisco. First shown as part of the Open book programme on 11 February 2001. This film focuses on production of the Arion Press folio bible (see also P5.2)

#### Summary

The film opens with shots of pages from the bible being printed and a close-up of the Redington counting machine on the press. Andrew Hoyem, the founder of the Press, then talks about the bible project and various stages of production are shown:

- hand binding the book
- illumination of initial letters
- a forme of type being planed
- the Monotype caster
- shots of the type foundry with various machines running

- matrix and type
- a matrix being put into the Thompson caster
- molten type metal squirting from the jet
- an interview with Monotype keyboarder Peter Stoelzl
- forme showed on the bed of the press and the press working
- information about the history of the Arion Press and its future
- rollers being inked

#### P5.4 *Inangaro: the legend of the coconut* (1986)

13 minutes, VHS

Director: Andrew B. Campbell

Producer: Ohio State University

RBS v11.2

##### Overview

The story of a book arts collaboration at the Logan Elm Press where four pairs of artists and craftsmen each produce an interpretation of the Polynesian legend Inangaro. Includes footage of making specially shaped and coloured paper by hand and printing on a flat-bed cylinder press.

#### P5.5 *Firefly*

6 minutes, mov

Ludlow.mov

[www.typeculture.com](http://www.typeculture.com) | University of Reading

##### Overview

Filmed at the Firefly Press, Somerville, USA. Shows an assortment of nice shots of printing on a treadle press, composed and inked-up type, handsetting, casting type on a Monocaster and on Monotype and Linotype machines mixed in with examples of letterpress printing. The low resolution means this film does not view well at full screen.

#### P5.6 *Golgonooza* (2000)

27 minutes, VHS

Director: Shannon Robards and Gahlord Dewald

Producer: Manifold Media

RBS v11.6

##### Overview

Dan Carr and Julia Ferrara making books at the Golgonooza Letter Foundry and Press in New Hampshire. It shows punchcutting by hand, using a Monotype machine, printing on a Vandercook, and binding. There is very little explanation of what is happening in the pictures – the focus of the film is on what inspires Dan and Julia's work – so the film is of little use to anyone wanting to learn about the processes involved. The film does give a good idea of what the Monotype keyboard and caster sound like (Julia and Dan both say that listening to the sounds of the machine is important).

##### Summary

2:48 Punchcutting by hand

5:56 Keyboarding on the Monotype

9:06 Casting on the Monotype

14:18 Printing on a Vandercook flat-bed cylinder press

17:28 Binding

#### P5.7 *Cockneyland* (14/04/1968)

1 minute, b&w, wmv

2059\_16.wmv

[www.britishpathe.com](http://www.britishpathe.com)

##### Overview

Story about the new Cockneyland tourist attraction. Includes a few seconds of footage of The Cockneyland Press – a man pulling a print off a tabletop proofing press.



## Q2 Book illustrators

### Q2.1 *J. G. Lubbock – artist and writer* (1998)

37 minutes, VHS

Director and Producer: Peter and Daphne

Copestake

RBS v6.23

#### Overview

Very much a film of two parts. The first shows the interesting mixture of techniques used by eccentric artist and writer Joseph Lubbock to create hand-crafted books, printed from steel-faced copper plates, which explore man's relationship with spiritual forces. After a short section with Lubbock explaining some of his work the last 16 minutes is entirely comprised of readings from his books over shots of the illustrations.

#### Summary

Apparently Lubbock has experimented with linocuts, woodcuts, lithographs, and silkscreen but usually uses steel-faced copper plates. He uses numerous different techniques including engraving, etching, deep etching, aquatint, soft-ground etching, relief, roll-up, and 'spatter' (the latter is his own invention). The film shows Lubbock:

- engraving
- putting hard ground onto plates heated on an electric heater
- smoking the plate
- using an etching needle
- modelling clay to form a barrier for acid (Lubbock make's his own acid baths using clay)
- using acid resist (stop-out varnish)
- applying acid to the plate
- using acid resist to produce a design
- applying aquatint ground
- drilling a hole in the plate to get a pure white
- soft ground etching
- inking the plate in several different colours and wiping it clean
- inking relief areas à la poupée
- the plate being printed on a flat bed cylinder press
- print and plate shown together
- watercolours added by hand
- explanation of which parts of the print resulted from the different techniques used

**18:30** Lubbock explains the thinking behind some of his work

**21:20** Various prints shown together with readings from the books

### Q2.2 *A thief among angels: Barry Moser and the making of the Pennyroyal Caxton Bible* (2000)

54 minutes, VHS

Director: Jason Kessler

Producer: Doug Kessler

RBS v6.22

#### Overview

The story of the production of the Pennyroyal Caxton Bible, designed and illustrated by wood-engraver Barry Moser, hand-bound in vellum, printed using a special version of Matthew Carter's Galliard. Includes some good footage of a Heidelberg flat-bed cylinder press.

#### Summary

Introduction to Barry Moser and the Pennyroyal Caxton Bible project

**15:20** Barry Moser wood-engraving

**17:15** An interview with Matthew Carter who is interviewed talking about type design – Galliard was chosen for the bible text (Mantinia for the headings) and Carter refit it for the chosen type size.

**20:45** Discussion of images from the bible and more of Barry Moser's background

**30:20** Discussion of typography and book design – 50 designers designing the book of Genesis

**36:00** Printing the bible on a 1965 Heidelberg KSBA flat-bed cylinder press 18 × 23 inch maximum sheet size

- shots of the controls of the press and of the book being printed
- Bradley Hutchinson, printer, inking the roller, putting the forme on the bed of the press, and printing proofs
- part of the block printed too light – corrected by altering the packing

**39:45** Barry posing for a self portrait for the bible

**43:10** Binding – Sarah Creighton and Claudia Cohen hand binding the books in vellum (using 800 goat skins) and adding the title in gold leaf

- shots of the finished bible and the launch of the book

### Q2.3 *Stanley William Hayter: artist as teacher* (1970)

11 minutes, VHS

Producer: Ohio State University

#### Overview

Shows Hayter explaining and demonstrating to students the inking of a copperplate in different colours using inks of different viscosity and taking a print. It's very difficult to see what is happening and the film ends rather abruptly. Hayter was certainly popular with the students (the class was voluntary but still extremely full) but the film's claim that he was the inspiration for the rebirth of printmaking as an art form seems a little over the top.

## Q2.4 *Barry Moser: a workshop in wood-engraving* (1982)

56 minutes, VHS

Director: Jim Settlemier

Producer: Bill H. Ritchie Jr

RBS v6.19

### Overview

Barry Moser demonstrates wood-engraving to a group of students 'live in the classroom just as it happened' – which makes the film much longer than it needed to be. Useful for anyone wanting to learn wood-engraving, includes an interesting discussion of the relative merits of different kinds of wood and how blocks are made.

### Summary

- examination of different kinds of wood
- explanation of how woodblocks are made
- sanding blocks ready for printing
- drawing/painting on the block

**25:00** Making an engraving

- different kinds of engraving tool

**49:00** Inking the block (by rubbing)

- use of different papers

## Q2.5 *The genius of Dürer: Albrecht Dürer, printmaker & painter* (1995)

43 minutes

Producer: The National Gallery in Association with  
The British Museum

RBS v6.26

### Overview

This film about the life and work of Dürer covers the various different methods used by Dürer to make both relief and intaglio prints.

### Summary

Woodcutting

- inking with a dabber
- printing by burnishing

Copper engraving

- inking
- printing on a star-wheel press

Etching

- applying ground
- using an acid bath
- printing

Dry point

## R2 History of etching & engraving

### R2.1 *The flowering of the Pacific: Banks' Florilegium* (1984)

59 minutes, VHS

Director and Producer: Brian Adams

RBS v6.3

#### Overview

Narrator Robert Hughes tells the story of Banks' education and interest in botany and his Grand Tour around the world with Captain Cook on the *Endeavour* collecting plants. The film is interspersed with the story of the Alecto Editions project to finish Banks' work by reprinting the from the original plates of Banks' *Florilegium*. Includes shots of inking plates, cleaning and printing the plates. See also R6.3.

## R3 History of wood block printing

### R3.1 *Woodcuts by Rigby Graham* (1990)

41 minutes, VHS

Producer: OnBoard Productions

RBS v6.10

#### Overview

Rigby Graham demonstrates his technique of making colour woodcuts in the Japanese manner (but using oil-based inks), printing an image in ten colours in three impressions from three different blocks. The ink is transferred from the blocks to the paper by burnishing with a wooden spoon.

#### Summary

A brief history of woodcutting followed by Rigby Graham explaining and demonstrating his working method:

- inking the block, taking a proof on tracing paper by burnishing with a wooden spoon and transferring to a new block
- the same process using acetate
- three printing blocks shown
- inking the first block in six colours
- taking a print
- inking the second block in four colours and printing second impression
- inking the third and final block in black only and printing the third impression
- final print and separations shown

### R3.2 *Xylography or the era of wood engraving* (1986)

27 minutes, VHS

Director: Jaques Sandoz

Producer: Libraprim

RBS v6.12

#### Overview

A discussion of various illustrated books, mainly French, printed between 1493 and 1553. There is

two minutes of excellent footage at the beginning of the film of Robert Blanchet, printer and wood-engraver, at work. The film itself seems confused about the difference between woodcut and wood-engraving (the era in question is surely the era of the woodcut) and there are other inaccuracies such as claiming that the end of the era of 'wood-engraving' was due to it being a slow process which was replaced by metal engraving'. The illustrations of these early books are unusual to find on film and may be of use if the originals or other reproductions are not available for consultation. The end of the film has another useful section with Robert Blanchet and at this point explains the difference between woodcut and wood-engraving.

#### Summary

Robert Blanchet wood-engraving, wearing a lens and using a bowl of water to focus the light

- close-ups of him working on the block with a burin.
- inking a wood-engraved block with an ink ball
- printing a proof on an iron hand press

2:15 Examples of various woodcut illustrated books are shown with a very brief discussion of each one

- *The Nuremberg Chronicle* 1493
- *Tewrdannckh* 1519
- *Image of Saints* 1518
- *On famous men ...* 1493
- *The nine valiant knights* 1507
- *The sojourn of honour* 1529
- *Perceforest* 1528
- *Champfleur* 1529
- *The treasure of wisdom* 1531
- *The novel of the rose* 1538
- *The declaration of the instrument* 1554
- *The annals of France* 1547

19:34 Robert Blanchet wood-engraving

- working on a block
- sharpening a burin on the block
- discussion of the difference between woodcut and wood-engraving
- examples of different types of wood

22:59 Ink making

- mixing pigment with varnish
- grinding
- inking balls

Printing the engraving

- inking the block with ink balls
- printing on an iron hand press (without using the tympan)
- the Holy Bible 1553 and the end of the 'era of wood-engraving'

## R5 Printmaking technique

### R5.1 Printmaking processes (1998)

24 minutes, VHS

Director: Jim Ockley

Producer: The Minneapolis Institute of Arts

RBS v6.25

#### Overview

This film explains and demonstrates reproduction of images using the four main printing processes (relief, intaglio, lithography, and screen printing) with mixed results – the intaglio and screen printing sections are excellent but the explanation of lithography is confusing.

#### Summary

Relief printing

- basic principle demonstrated using a diagram
- choosing wood
- transferring an image using chalk
- cutting the block
- inking the block
- printing on a flat-bed cylinder press (with a blanket as used for copperplate printing)
- printing without a press – ‘Japanese style’ printing using spoons to apply pressure

#### 5:25 Intaglio printing

- basic principle demonstrated using a diagram
- sharpening tools
- engraving
- etching (applying ground; transferring and drawing images; acid bath)
- aquatint (dusting with rosin; stop-out varnish)
- burnishing and scraping
- drypoint
- inking and printing

#### 13:40 Lithographic printing

- basic principle demonstrated using a diagram
- preparing the stone
- drawing on the stone
- processing the image
- printing the image

#### 18:30 Screen printing

- basic principle demonstrated using a diagram
- preparing the screen
- photographic transfer method
- block-out transfer method
- cut-stencil method
- printing the image
- registered printing

## R6 Engraving & etching technique

### R6.1 Fine art copper plate printing (aka lithograph making) (20/05/1957)

1 minute, wmv

61\_18.wmv

www.britishpathe.com

#### Overview

Printer George Hardcastle inking plate an engraved steel-faced copper plate by Samuel Cousins ‘a la poupée’ and printing on a hand press. The title is misleading – the film is about copper plate printing not lithography.

### R6.2 Audubon’s Birds of America (1985)

6 minutes, VHS

Producer: American Museum of Natural History / Alecto Historical Editions

RBS v6.2

#### Overview

A short film, presented by David Attenborough about a project to produce a facsimile edition of *The birds of America* from the original plates which were originally printed by Robert Havell in London from original drawings supplied by John James Audubon. Good footage of the various processes involved in producing the prints (although they are shown out of sequence) especially the à la poupée technique whereby all the different colours on each plate are printed in one pull (in the original edition all colour was added by hand).

#### Summary

- plate coated in ground being engraved
- plate being etched in acid bath
- aquatint being fused to the plate
- an inked plate being wiped
- plate being printed in a large flat-bed cylinder press operated by two men
- coloured ink being added to the plate
- original plates being touched up to remove scratches and blemishes
- examination of colour proofs
- water-colour hand finishing
- shots of the original double-elephant folio

### R6.3 Banks’ Florilegium (1986)

7 minutes, VHS

Producer: ESI productions

RBS v6.12

#### Overview

A promotional piece by Alecto Editions showing the work involved in producing colour prints, à la poupée, from the plates which were originally published in black and white in Banks’ Florilegium (the colours were based on the watercolours which provided the source material for the original engravings). Leaving aside the moral issues involved in chrome facing the original plates, the film shows

the incredible effects than can be achieved from this method of printing.

### Summary

- copper plates being cleaned and polished to remove old ink
- plates smoothed with a burnisher to remove imperfections and surface blemishes (by comparing a new print with the original print)
- making ink (mixing pigment with boiled linseed oil; grinding with a muller)
- inking the plates à la poupée – working ink into the plates with a rag
- plates being printed on a large flat bed cylinder press
- drying the prints between blotting paper and pressing them
- hand-colouring to finish the prints
- blind embossing the printer's initials and the edition number

## R6.4 *Fine lines* (1972)

35 minutes, VHS

Producer: Department of Geography, University of Edinburgh

RBS v6.5

### Overview

Excellent film, narrated by David Levy, showing the process of printing maps from copper engravings from engraving the maps with punches and burins to making corrections and printing the plates. The engraving section includes some excellent close-up shots of engraver Bert Bremner and it is the only film in this list that shows how to make changes / corrections to a copper engraving.

### Summary

Introduction

- large cylinder presses at work
- use of computers in cartography
- traditional mapmaking

#### 5:17 Copper-plate engraving

- engraver's workstation and tools
- transfer of drawing to the plate
- lettering
- symbols
- using a parallel graver
- threading

#### 17:37 Making alterations to a plate

- recording the original plate
- area to be altered is burnished, scraped, or gouged clear
- position of corrected area marked on the back of the plate using callipers and beaten to give a level surface for re-engraving
- old detail is returned to the plate
- the plate is re-engraved with new information
- use of a toothed wheel
- shows the back of a plate which has had a large number of amendments/corrections made to it

#### 26:45 The image being transferred to a lithographic stone

- a warmed plate being inked and cleared, ready for printing
- the plate being printed and the pressure of the

press adjusted

- print checked and left in a stack to dry

## R6.5 *Faithfully yours* (24/11/1941)

3 minutes, b&w, wmv

1538\_10.wmv

www.britishpathe.com

### Overview

Vera Dunne, landscape artist, demonstrates etching. Applying ground and smoking the plate, drawing on the plate with an etching needle, the being etched in an acid bath, use of stop-out varnish, removing the ground. Inking and wiping the plate and taking a proof on a hand-operated flat-bed intaglio press.

## R7 Wood block printing technique

### R7.1 *The art of wood engraving* (1972)

38 minutes, b&w, VHS

Director: John Horden

Producer: The Institute of Bibliography and Textual Criticism, University of Leeds

RBS v6.8

### Overview

Director John Horden interviews wood-engraver Helen Benians. Benians does not appear to be the most accomplished of wood-engravers and is not helped by John Horden's rather bullish interview. Some of the discussion is inaccurate – half of the explanation of the difference between woodcut and wood-engraving is actually about the difference between white-line and black-line both of which can be produced in either medium. As the RBS catalogue points out the film also suffers from under editing.

### Summary

A brief introduction to the history of book illustration and an explanation of the difference between intaglio and relief and between woodcut and wood-engraving

9:50 Demonstration of Benian's technique for producing wood-engravings and an examination of the tools that she uses

20:20 Engraving the block

30:12 Discussion of printing from blocks

34:50 Examination of historical examples (*The Penny Magazine*)

## R7.2 *Japanese woodcut workshop: a course in four sections by Izumi Kuroiwa* (1991)

73 minutes, VHS

RBS v6.14

Producer: Kuroiwa-Leonard Media Arts

### Overview

An in depth demonstration of how to make and print woodcuts in the Japanese fashion using waterbased inks and printing from several blocks (without using a printing press). The film is divided



into four sections: a brief history; tools and materials; the process of Japanese woodcut printmaking; and maintenance of tools and making of ink. The historical section is very short – the purpose of the film is to teach people woodcut printmaking. Useful examinations of the tools and materials used.

### Summary

Section 1: a brief history

- explains the history of the woodcut showing some examples including colour woodcut printing
- examples of work by contemporary artists using woodcut

#### 9:08 Section 2: tools and materials

- demonstration of technique used in early-mid nineteenth century Japan
- shows tools required (blades, sharpening stones, brushes, and baren)
- different kinds of wood
- different types of Japanese paper
- the difference between Japanese and Western technique (using water-based ink, rather than oil-based ink)

#### 20:25 Section 3: the process of Japanese woodcut print-making

Cutting blocks

- different blocks
- four colours on one block
- transferring kento (registration) marks and image onto block using carbon paper and tracing paper
- securing the block
- carving registration marks
- carving the image

Printing

- damping the blocks and the paper
- inking with a brush
- printing by applying pressure with the baren

Section 4: maintenance of tools and making of ink

- cleaning blocks and brushes
- tips for looking after tools, blocks, and prints
- sharpening blades
- rewrapping baren
- making paste
- making inks
- printmaking suppliers

## R8 Artistic lithographic technique

### R8.1 *The art of lithography: working on stone* (1990)

26 minutes, VHS

Director: Trevor Long

Producer: Roger Snodgrass

RBS v6.16 | University of Reading

#### Overview

Made by the Tamarind Institute, New Mexico University, this film shows master printer Bill Lagattuta printing an image drawn and painted directly onto the stone by artist George McNeil. Shows every step of the stone lithography process from preparing the surface of the stone to printing an impression.

Narrated by Hope Atterbury. Available to buy from [www.unm.edu/~tamarind/](http://www.unm.edu/~tamarind/).

#### Summary

Preparing the stone

- using a levigator to prepare the surface of a stone
- drying with a flag
- marking the printing area on the stone

#### 2:30 Making an image

- painting and drawing on the stone

#### 5:01 Fixing the image

- preparing the stone for etching using rosin and talc
- protecting the light areas using gum arabic
- applying nitric acid and gum arabic to the stone
- brief explanation of the chemical principles

#### 11:30 Preparing the stone for printing

- applying gum Arabic to the stone and drying with a flag
- applying lithotine to the stone to remove the image
- applying asphaltum and lithotine to the stone
- cleaning the inking roller
- charging the inking roller with ink
- inking up the stone
- printing on a powered scraper press

#### 17:30 Altering the image

- correcting the stone – applying a counter-etch solution (citric acid and water)
- adding more marks to the stone
- inking up the stone
- printing on a powered scraper press

### R8.2 *The art of lithography: working on aluminium plates* (1990)

24 minutes, VHS

Director: Trevor Long

Producer: Roger Snodgrass

RBS v6.17 | University of Reading

#### Overview

Made by the Tamarind Institute, New Mexico University, this film shows master printer Jeffrey Sippel printing an image drawn and painted directly onto the aluminium plates by artist Jaune Quick-to-see Smith. Shows every step of the aluminium plate lithography process from preparing the surface of the plate to printing an impression. Narrated by Hope Atterbury. Available to buy from [www.unm.edu/~tamarind/](http://www.unm.edu/~tamarind/)

#### Summary

Preparing a plate for printing

- using a grain machine to remove an image from a plate

#### 2:20 Making an image

- producing drawings for a four-colour lithograph
- making registration marks
- transferring an image to the plate using paper coated with iron oxide
- blocking out white areas with gum arabic
- painting and drawing the image on the plate

#### 6:15 Fixing the image

- applying talc to the plate
- applying gum arabic, tannic acid, and phosphoric



- acid mixture in different strengths to etch the plate
- drying the plate with a flag

**9:56** Preparing the plate for printing

- applying gum arabic to the plate
- asphaltum mixed with lithotine used to remove the image
- applying acetone to remove last traces of drawing
- protecting the image using red laquer
- applying a coating of asphaltum and lithotine
- inking up the plate

**16:33** Discussion / explanation of counter etch

- making additions to the plate
- second etching

**19:00** Printing the final edition

- mixing inks and printing a four-colour lithograph on a powered scraper press
- problems with the image darkening or fading during the print run

**R8.3** *Four stones for Kanemitsu* (1973)

29 minutes, VHS

Producer: June Wayne

RBS v6.18 | University of Reading

**Overview**

Serge Lozingot and Gene Sturman printing an edition of a four-colour lithograph by artist Matsumi Kanemitsu. Shows every step of the stone lithography process from preparing the surface of the stone to printing an impression. Shows the result of printing the same set of four stones in a number of different colour combinations. Available to buy from [www.unm.edu/~tamarind/](http://www.unm.edu/~tamarind/)

**Summary**

Preparing the stone

- levigating the stone
- washing and drying the stone
- marking the printing area and making registration marks

**3:45** Making an image

- making 'tush' mixture
- masking areas of the stone with gum Arabic solution
- painting on the stone

**7:05** Fixing the image

- applying rosin to the stone
- applying talc to the stone
- applying gum arabic to remove the gum mask-out
- etching the stone with gum arabic and nitric acid solution

**11:00** Preparing the stone for printing

- inking the roller
- washing out the image with lithotine
- applying asphaltum to the stone

**12:10** Inking and wetting the stone

- printing the stone on a hand-powered scraper press (on paper and acetate)
- printing on acetate

**15:45** Using a proof on acetate as a guide to draw onto a second stone

- painting the second stone
- selecting colours

- proofing the second, third, and fourth stones
- taking a proof of all four stones

**19:30** Different colour combinations**22:25** The print run

- the sponger
- cleaning the roller
- inking up and printing the second, third, and fourth colours
- altering the image for a different edition
- cancelling the stone
- the curator checking the edition
- the artist signing the prints
- embossing chop marks into the prints
- cleaning the plate with a powered levigator

**R9** *Silkscreen & other printmaking processes***R9.1** *Nixter shirt printing* (nd)

3 minutes, mov

Nixter\_ShirtPrinting929.mov

[www.archive.org](http://www.archive.org) | University of Reading

**Overview**

Short film showing t-shirt printing using silk screen. Zero explanation of the process.

**R9.2** *Cave art (aka modern artists)* (21/11/1960)

119\_14.wmv

3 minutes

**Overview**

Douglas Mosonovic(?) reproducing cave-paintings at full size using silk-screen (serigraphy). A simple explanation of the process and shots of printing being done.

## S1 General history of graphic design

### S1.1 *Type and design* (1980?)

30 minutes, VHS

Producer: Mergenthaler Linotype Stempel Hass  
University of Reading

#### Overview

One of a series of three films made by Linotype comprised entirely of still slides with a voice over (the others are *The history of type* (X1.1) and *Developing a type library* (X1.2)). This film discusses the how the use of type has changed and developed since the industrial revolution. It doesn't actually show any printing or typesetting but provides a useful overview of the story of graphic design in the 20th century. Unfortunately the picture quality on the University of Reading copy is extremely poor.

#### Summary

- the Victorian era
- William Morris
- French posters (Cheret)
- early twentieth-century German posters
- Futurism
- Dada
- De Stijl
- Constructivism
- the Bauhaus
- Jan Tschichold
- Art Deco
- the Great Depression
- modern classicism
- World War 2
- Swiss Typography
- American design
- Paul Rand
- swinging London
- the pop movement
- Haight-Ashbury
- the American graphic expressionists
- electronics

## S6 Typographic design

### S6.1 *A-Z (Signals series)* (12.10.1988)

55 minutes, VHS

Director: Ian Duncan

Producer: Matt Whitby

British Film Institute

#### Overview

An episode of Channel 4's Signals series looking at the hidden art of typography presented by Morwenna Banks and Patrick Hughes with contributions from design luminaries Neville Brody, Malcolm Garrett, Peter Saville, Paul Stone, and Michael Wolff. Concentrates on design rather than production but does cover, albeit production of metal type by hand and hot metal (including an excellent shot of a punchcutting pantograph) and digital type production.

#### Summary

- Michael Harvey and other lettering artists talking about their favourite letters
- examples of many different ways of making letters
- explanation of the terms upper case and lower case showing hand typesetting (James Mosley at St Bride Library?)
- explanation of the origins of the alphabet
- the top 10 typefaces (Gutenberg gothic; Aldine roman; Baskerville; Bodoni; Figgins (slab serif); Morris (Troy); Futura; Times Roman; Helvetica; Brody)
- designer Michael Wolff talking about typefaces invoking feelings
- various logos and symbols in metal type

#### 15:25 Printing

- engraving a steel punch
- making a smoke proof
- striking a matrix
- handcasting metal type
- type being inked up and printed on an iron hand press by Ian Mortimer

#### 17:44 The invention of the typewriter and the qwerty keyboard

- explanation of x-height, ascenders and descenders, counters, serif and sans serif

#### 19:30 Tracing a metal pattern in a punchcutting pantograph

- type being cast on a Monotype caster

#### 20:45 Digital type

- creating type on screen
- digitising a type drawing

#### 22:13 Malcolm Garrett, graphic designer, talking about desktop publishing and the role of the graphic designer

#### 26:50 End of part one

#### 30:00 Part two

- designers Peter Saville and Paul Stone talking about packaging design and branding

#### 34:37 Great type designers (Aldus Mautius; John Baskerville; Edward Johnston; Hermann Zapf (interviewed); Margaret Calvert (interviewed); Adrian Frutiger (interviewed))

#### 43:35 Neville Brody talking about graphic design and typography

## U1 Posters

### U1.1 *Wealth of the world – transport – reel 2* (1947–1951)

9 minutes, wmv  
2855\_02.wmv  
www.britishpathe.com

#### Overview

The first 15 seconds shows posters headed 'Transport Act 1947' coming off the press. The remainder of the film discusses the UK's transport system.

## U3 Greetings, post & playing cards

### U3.1 *Britons plan bright xmas for USA* (03/10/1949)

1 minute, b&w, wmv  
1425\_16.wmv  
www.britishpathe.com

#### Overview

Production of scented Christmas cards for US market. Shows cards being hand-finished, artists at work, cards being printed on sheet-fed press, finished cards being collated, more hand-finishing.

### U3.2 *'Xmas' in August* (21/08/1966)

2 minutes, wmv  
1799\_30.wmv  
www.britishpathe.com

#### Overview

Reading and Northolt. Artists at work. Christmas cards being printed and finished and packed for export.

### U3.3 *Father Christmas joins production drive* (15/11/1948)

1 minute, b&w, wmv  
1442\_08.wmv  
www.britishpathe.com

#### Overview

First 40 seconds focuses on Christmas cards: artists producing artwork, cards on press, hand-finishing (glitter added).

### U3.4 *St Valentine's cards* (11/12/1961)

2 minutes, wmv  
163\_24.wmv  
www.britishpathe.com

#### Overview

Shows Valentine ephemera at the V&A. Artwork being produced by artist Ken Gridley. Cards being produced. Shots of glitter being added by machine. Adding tip-ins by hand.

### U3.5 *By numbers* (04/05/1936)

1 minute, b&w, mute, wmv  
1132\_17.wmv  
www.britishpathe.com

#### Overview

Story looking at how census information is processed and stored in Italy. Includes shots of census papers being printed on a large web-fed press and of a machine printing catalogue index cards.

### U3.6 *Making xmas cards* (1948)

2 minutes, b&w, mute, wmv  
2234\_12.wmv  
www.britishpathe.com

#### Overview

Checking negatives against an original piece of artwork, setting up a large camera, printing on a number of different presses and hand finishing.

### U3.7 *Comic postcards* (nd)

5 minutes, wmv  
2537\_02.wmv, b&w, mute  
www.britishpathe.com

#### Overview

Production of comic postcards – shows cards coming off the press, being guillotined, and packaged up but mainly focuses on the cards themselves.

## U4 Maps, charts & globes

### U4.1 *Caught mapping* (1940)

9 minutes, b&w, mpeg  
Producer: Jam Handy Organisation  
CaughtMa1940.mpeg  
www.archive.org | University of Reading

#### Overview

Film explaining map surveying and how maps are kept up to date with the latest information. Includes some footage of plate production and printing.

#### Summary

- 0:53 Producing a woodcut map
  - maps being printed on rotary presses
- 2:00 Corrections/amendments made on an acetate sheet
- 7:44 Acetate sheet placed into a vacuum frame and photographed onto a glass negative
  - a plate is etched and then fitted to a press
  - a sheet-fed press printing and folding maps

**U4.2 Map Survey** (22/04/1965)

2 minutes, wmv  
315\_09.wmv  
www.britishpathe.com

**Overview**

Photographing hand drawn maps for print production at the Ordnance Survey using a specially built camera: 'the most advanced and accurate camera of its size in the whole world'. Inking rollers and printing on a sheet-fed press.

**U4.3 The world is round** (19/12/1935)

2 minutes, b&w, wmv  
1442\_08.wmv  
www.britishpathe.com

**Overview**

Stone lithography printing in a globe factory. Shows machine levigating, engraving on the stone, preparing stones for printing, printed sheets coming off the press and being cut and pasted by hand.

**U4.4 Mobile map truck (step on it)** (24/01/1944)

2 minutes, b&w, wmv  
1572\_04.wmv  
www.britishpathe.com

**Overview**

Map production in the field – shots of trucks in which platemarking and lithographic printing takes place.

**U4.5 The production of a map** (1917)

5 minutes, b&w, mute, 35mm  
British Film Institute

**Overview**

Short film, courtesy George Philip & Son, showing production of maps by lithography from copper-engraved originals.

**Summary**

- geographical draughtsmen compiling and drawing maps
- engraving map on copper plate from which transfers are taken for printing

Shows engraver at work and all tools

- graining plates to prepare for transferring

Marble machine with grain added

- transferring key maps from copper plate transfers

Printing? onto lithographic stones

- preparing colour plates for machine printing

Artwork being produced

- general view of printing machines

- lithographic machine printing maps from flat plates

Powered lithographic press

- fast running rotary lithograph printing maps from curved plates
- preparing school globes from cardboard

Sheet put into a special machine which makes half a globe

- preparing library globes from composition
- affixing the printed maps on 'gores' and finishing globes
- general view of mounting maps on calico and completing for use
- a library globe

**U4.6 New atlas made in Czechoslovakia** (1965)

2 minutes, b&w, mute, wmv  
3108\_09.wmv  
www.britishpathe.com

**Overview**

Shows production and photography of original artwork, plates being touched up by hand and the atlas being printed.

**U5 Ephemera****U5.1 'WOCCI' is master of demob** (14/12/1944)

3 minutes, b&w, wmv  
1370\_18.wmv  
www.britishpathe.com

**Overview**

Follows the story of a card index's progression through War Office Central Card Index (WOCCI). Shows machines which punch cards and other which convert the punch holes back into letters and numbers.

**U5.2 Two millions a day: a tram ticket tale** (1920s?)

4 minutes, b&w, mute, b&w, mute  
1006\_28.wmv  
www.britishpathe.com

**Overview**

Shows a machine reducing large paper rolls to narrow ones. Died lines printed onto rolls. Ticket printed on a special machine which gives each a different number. Tickets are cut into strips and 'wired' then tied up, guillotined, and packed.

**U5.3 They get it in black & white** (26/03/1945)

2 minutes, b&w, wmv  
1149\_10.wmv  
www.britishpathe.com

**Overview**

Leaflets being printed in a specially constructed trailer on the western front for the Allied psychological warfare branch. Apart from fifteen seconds or so of leaflets coming off the press the film concentrates on the preparation of finished leaflets for dropping by balloon.

**U5.4 Electronic railway** (17/04/1961)

3 minutes, wmv  
139\_10.wmv  
www.britishpathe.com

**Overview**

Electronic devices and machinery used on the railways and behind the scenes at British Rail. Brief glimpse of special machines to print tickets and pay slips

**U5.5 Political news – Deakin retires** (21/03/1955)

1 minute, b&w  
513\_18.wmv  
www.britishpathe.com

**Overview**

Retirement of the General Secretary of the Transport and General Workers Union. Brief glimpse of printing ballot papers for the election of the new General Secretary.

**U7 Security printing****U7.1 New photo copying machine (aka Washington)** (23/03/1936)

1 minute, b&w, mute, wmv  
857\_08.wmv  
www.britishpathe.com

**Overview**

A new type of printing machine (not a photocopier) is seen in action in an American factory printing Bonus Bonds.

**U7.2 Money stream flows steadily as treasury rushes new currency** (1933)

1 minute, b&w, mute, mpeg  
1933-03-20\_Money\_Stream\_Flow\_From\_Treasury.mpeg  
www.archive.org | University of Reading

**Overview**

Includes a shot of a long line of small web-fed machines.

**U7.3 Baby bonds for defense** (1941)

1 minute, b&w, mpeg  
1941-04-17\_Baby\_Bonds\_For\_Defense.mpeg  
www.archive.org | University of Reading

**Overview**

The first 30 seconds or so shows stamps being printed on web-fed printing machines and bonds being printed on a sheet-fed machine.

**U7.4 Foreign stamps** (26/03/1956)

2 minutes, b&w, wmv  
39\_19.wmv  
www.britishpathe.com

**Overview**

Shows engravers at work (producing artwork and engraving) on postage stamps. Also shows a steel die being produced using a pantograph. A proof of the die is produced and the hardened engraving is duplicated onto copper sheets. Printing and perforating machines are also shown. 'Even the girls employed here are skilled operatives.'

**U7.5 Money makers** (31/07/1960)

3 minutes, wmv  
117\_20.wmv  
www.britishpathe.com

**Overview**

Design and production of banknotes at Morris Waterlow and Sons, Worship Street, London. Shows artwork being produced. Steel die being worked on. Die embossed onto a softened steel cylinder in a transfer press. Hardened cylinder then used to transfer the banknotes onto a printing plate. Sheets of banknotes being printed and examined for imperfections.

**U7.6 Silver Jubilee stamps: Sir Kinglsey Wood inaugurates special commemorative issue** (25/04/1935)

2 minutes, b&w, wmv  
825\_01.wmv  
www.britishpathe.com

**Overview**

Room full of women checking stamps for imperfections. Stamps being printed on web-fed rotary presses.

**U7.7 How Eve makes money** (01/08/1929)

3 minutes, b&w, mute, wmv  
886\_12.wmv  
www.britishpathe.com

**Overview**

'Most men believe this impossible, but as a matter of fact, Uncle Sam's daughters have been making money for years \_ on paper. Adam starts the business \_'

Man engraving bank note. Making cylinder on transfer press and making plates.

'Then Eve takes up the job.'

Room full of women operating machines to print the money. Women operating machine cutting sheets into individual bills and checking sheets for faults.

**U7.8 Ready for a licking?** (26/04/1937)

2 minutes, b&w, wmv  
 1150\_16.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

**Overview**

Short film showing various stages of stamp production. Artwork photographed by an automatically controlled camera. Transferring the photographic image to a cylinder. Printing on a purpose built web-fed rotary press which gums and perforates during printing. Finished sheets coming off the press and being checked for imperfections.

**U7.9 Holland stamps!** (29/01/1940)

2 minutes, b&w, wmv  
 1198\_08.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

**Overview**

Original painting photographed and reduced to actual size. Plate taken to a developing tank and contact print made. Special cabinet used to produce multiple copies of the stamp on a single sheet. Impression of whole sheet taken on a metal roller which is etched in a chemical bath. Stamps printed on web-fed rotary press and then perforated on a separate machine.

**U7.10 New Hungarian postage stamps** (1964)

1 minute, wmv  
 3159\_26.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

**Overview**

Artwork, and engravings being produced. Stamps on rotary press. A single finished stamp.

**U7.11 30 seconds news – two stories** (20/03/1966)

1 minute, b&w, wmv  
 1789\_19.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

**Overview**

Includes a short clip of money being printed at the US treasury.

**U7.12 Neerlands nieuws (aka Dutch floods)** (1953)

10 minutes, wmv  
 2008\_15.wmv, b&w  
[www.britishpathe.com](http://www.britishpathe.com)

**Overview**

Dutch news story which includes around 20 seconds of stamps being printed at the PTT.

**U7.13 The King's stamp** (1935)

20 minutes, b&w, 35mm  
 Director: William Coldstream  
 Producer: EMPO  
 British Film Institute

**Overview**

Production of the King's silver jubilee stamp followed by a short history of the stamp

**Summary**

- 2:10 Sketching out design's for the King's silver jubilee stamp
- 4:10 · discussing alterations to the design for printing  
 · premises of Vincent Brooks Day & Son printers 'lithographers and photo-printers'  
 · drawing onto a litho stone  
 · stone being printing on a powered press
- 6:27 Lithographic print of the design taken to Harrison printers for production  
 · seal being removed from paper by a GPO official  
 · paper in a gumming machine  
 · paper being printed on a rotogravure machine (cylinder with stamps engraved on it)  
 · perforating machine  
 · stamps cut into sheets
- 8:45 Coin celebrating Queen Victoria's first entry into London  
 · postal reform (Roland Hill)
- 13:51 the design of the first stamp (the penny black)  
 · people experiencing the first stamps
- 18:45 the first Brazilian stamp (first country to follow UK)  
 · stamp collecting

**U7.14 Die Fabrication von Briefmarken** (1910)

4 minutes, b&w, mute, 35mm  
 British Film Institute

**Overview**

Short film, in German, about printing stamps at Perkins & Bacon in London

**Summary**

- Uebertragung auf Platten mittelst Stempel – stamping duplicate copies of the design onto a plate in a press with a small cylinder
- Die Bereitung des Papiers und das Ausschneiden der gewünschten Grössen – cutting paper to size in a guillotine
- Um einen vollkommenen Abdruck zu erzielen wird das Papier nassgemacht und für einige Stunden in die Presse gelegt – damping and pressing the paper before printing
- Das Abdrucken von den Platten – inking with an ink ball, rubbing ink off and printing on an intaglio hand press
- Das Gummieren und Trocknen in Gestellen – gumming and drying the sheets
- Das Durchlöchern der Papierblätter mittelst einer genau angepassten Maschine – sheets being perforated
- Die Prüfung und Verpackung – checking and packing the stamps



# ***Scripts and writing***

## **W Latin scripts**

W1 History of Latin scripts

## **X Typefaces**

X1 History of typefaces

X2 Type design

X3 Type designers

X5 Individual typefaces

## **Y Graphic notations**

Y2 Braille

Y4 Music notation & printing

## W1 History of the Latin script

### W1.1 *Alphabet: the story of writing* (1980)

4 × 30 minutes, VHS

Director and Producer: Jeremy Bennett

RBS v2.16–2.19

#### Overview

This four part series produced for Parker Pen contains hardly any printing or typesetting. The first two parts cover letterforms up to the fourteenth century and are highly recommended. They are extremely well done – particularly the parts where presenter Donald Jackson makes reed pens (part one) and quill pens (part two) and demonstrates their influence on letterforms. Part two also features a superb demonstration of the art of illuminating. Part three has a short section on printing which covers the invention of the printing press and copper engraving. While discussing Gutenberg the letterpress printing being shown from a much later period – an iron press is used and the type looks far too modern. Part 4 was presumably the point of the whole production as far as Parker Pen were concerned – it focuses entirely on pens, handwriting, and calligraphy. It is by far the weakest part of the series, disparaging the ‘bad new letterforms’ that computers have been responsible for and claiming that ‘we can tell what people were like from their writing’. Narrated by Susannah York and presented by Donald Jackson.

#### Summary

Part I: the making of letters

After an introduction and shots of lettering on various different kinds of signage the film goes back in time and discusses the development of letterforms including:

- Cave paintings, clay tablets, and wax tablets
- Hieroglyphics
- Papyrus
- The reed pen
- The origins of the alphabet
- Roman inscriptions

Part II: the pen is mightier than the sword

Focuses on manuscript production from the end of the Roman Empire including:

- The dark ages – the Book of Kells
- Development of lowercase
- The quill pen
- Using gold leaf
- Making ink
- Illumination

Part III: penman, printer, and engraver

- fourteenth- and fifteenth-century manuscript books
- Gothic script
- Italic (chancery) script
- the printing press – printing on an iron hand press, without using the tympan
- copy books
- copper-plate engraving – close-up of an engraver at work with flat bed cylinder presses working in the background and a copper plate being inked and printed

Part 4: writing: everybody’s art

- examples of pen labels
- examples of the copper-plate hand
- new inks for steel nibs
- portable pens
- ball point pens
- modern calligraphy

## X1 History of typefaces

### X1.1 *The history of type* (1979)

26 minutes, VHS

Producer: Mergenthaler Linotype Productions / Allied Corporation

RBS v2.11 | University of Reading

#### Overview

One of a series of three films made by Linotype comprised entirely of still slides with a voice over (the others are *Developing a type library* (X1.2) and *Type and design* (S1.1)). It doesn't actually show any printing or typesetting but provides a useful, though occasionally inaccurate, overview of the history of type. Unfortunately the picture quality on both the University of Reading and RBS copies is extremely poor. Narrator Mike Parker (Linotype's Director of Typographic Development).

#### Summary

The film starts with a background history equating developments in communication with human evolution and a discussion of early writing systems

- the development of pictographs into an alphabet by the Phoenicians and its subsequent development by the Greeks and Romans
- the development of Carolingian minuscule into gothic script
- Gutenberg
- the development of roman and italic scripts and punctuation.

#### 7:50 Discussion of the work of famous type designers and current versions of their types:

- Nicolas Jenson – Linotype Jenson and Cloister
- Aldus Manutius – Linotype Bembo
- Claude Garamond – Stempel Garamond and Sabon
- Robert Granjon – Galliard
- Hendrik van den Keere – Times Roman
- Nicholas Kis – Janson
- William Caslon – Caslon Old Face
- John Baskerville – Baskerville
- Fournier and the Manuel typographique
- Giambattista Bodoni – Didot, Bodoni and Bauer Bodoni

#### 18:30 Lithography and the expansion of letter design

- sans serif – Trade Gothic – Grot 215 – Grot 216
- slab serif and clarendon – Memphis – Rockwell – Clarendon

The twentieth century

- Auriol Roman
- Futura
- Metro
- Spartan
- Gill Sans
- Frutiger
- Helvetica
- Optima
- Avant Garde Gothic

### X1.2 *Developing a type library* (1979)

16 minutes, VHS

Producer: Mergenthaler Linotype Productions / Allied Corporation

RBS v2.11 | University of Reading

#### Overview

One of a series of three films made by Linotype comprised entirely of still slides with a voice over (the others are *The history of type* (X1.1) and *Type and design* (S1.1)). This film focuses on developing typefaces for photocomposition and has some useful content but images are of limited use because nothing is shown moving. Unfortunately the picture quality on both the University of Reading and RBS copies is extremely poor. Narrator Mike Parker (Linotype's Director of Typographic Development).

#### Summary

Explains C. H. Griffith's programme for typographic development and the establishment of the Linotype Library. A brief history of the company and how Mergenthaler Linotype, Stempel, and Haas came together.

#### 4:15 Discussion of the advantages of photocomposition and Linotype's output

#### 7:10 Preparing typefaces for photocomposition:

- explains how development from a hot metal typeface is really the same as developing a new typeface requiring a drawn source and the preparation of friskets
- problems of having a single master and having to consider the effect of offset rather than letterpress output
- preparation of friskets
- cutting a rubylith stencil
- preparing modular glass masters (plaques)
- cameras for photographing friskets
- 3 different plaques – uppercase, lowercase, variable
- shots of cameras used for making plaques (the plaques are made from friskets using a computer controlled step and expose camera designed and built by Linotype)
- explanation of how exposures from these plaques are used to produce film for use in phototypesetting machines

#### 14:00 Process for digital machines

- characters scanned at 4000 lpi
- information stored on magnetic tape

### X1.3 *Type speaks!* (1946)

26 minutes, VHS

Producer: Loucks & Norling Studios in collaboration with G. M. Basford Co.

RBS v5.2 | University of Reading

#### Overview

Film by the American Type Founders Sales Corporation looking at printing types – what they are, how they are made, and what they are used for. Includes an excellent diagrammatic explanation of ATF's Thompson typesetting machine. Presented by Ben Grauer.

**Summary**

Introduction – books before moveable metal type

Gutenberg

- early types and examples of early printing
- cutting a punch
- striking a matrix with a hand operated machine

Contemporary type design

- type designer Warren Chappell hand drawing type (Lydian) with pencil and then painting it in
- characters photographed
- making a pattern drawing
- cutting a brass pattern plates using a pantograph machine
- engraving matrices from brass pattern plated using a pantograph
- producing characters of different weights / widths from the same master
- different engraving tips used on the punchcutting pantograph

**11:15** Hand casting type

- explanation of how the hand mould works
- action of casting type
- shot of cast type in mould
- breaking off the jet
- planing the feet of the type
- smoothing the sides of the type

**12:50** Casting machines (the Thompson type caster)

- checking the depth of a matrix with a depth gauge
- squaring the matrix
- casting with a hand mould from a pump
- ATF casting machine at work
- animated diagrams of the inside of the machine, the type being formed in the mould, and the type after it leaves the mould
- checking the cast type
- type being laid out ready for shipping
- diagram of a piece of type

**20:23** Hand composition

Locking up type in the form

Printed sheets coming off a press

Examples of uses of different typefaces

- Caslon (corporate reports)
- Spartan (earth moving equipment)
- Bernhard Tango (perfume)

Students learning typesetting

**Summary**

Introduction

- cave paintings
- hieroglyphs
- the Phoenecian alphabet
- development of the letter A
- Trajan's column
- carving letters in stone
- graffiti in Pompeii
- uncial script
- Charlemagne and the Carolingian minuscule
- Gothic scripts

**16:35** Printing from moveable metal type

- Gutenberg
- roman type (Janson; Italic (shows matrices and punches); Garamond)

**25:56** Making type by hand (Enschedé)

- punchcutting
- smoke proofs
- striking a matrix
- handcasting

**29:58** Caslon: punches and matrices

- Baskerville: punches
- Roman du Roi
- Fournier
- Didot
- Bodoni: punches

Type for advertising in the nineteenth century

- fat face
- slab serif
- ornamented
- sans serif

**39:41** Typesetting techniques

- handsetting
- tying up type
- the Linotype machine

**42:58** Futura and Gill Sans**43:30** Letterpress superceded

- phototypesetting
- brief interview with Ed Benguiat
- digital type
- recording points using Icarus and storing characters as vectors
- bitmaps
- kerning with metal type and with digital type
- Herman Zapf on sloped roman vs. italic
- Matthew Carter on his work for AT&T

**X1.4 The world of letterforms (1986?)**

28 minutes, VHS

Producer: Columbus Films for Purup Electronics

Director: Steen Herdel

RBS v2.10

**Overview**

A well-made film about the history of letterforms from cave paintings and hieroglyphics to making digital type with the Icarus system. The focus is very much on what letterforms look like rather than how they are made although punchcutting, handcasting, handsetting, and the Linotype machine are all shown. Unusually it shows punches and/or matrices by a number of key historical figures.

**X1.5 To a 'T' (2006)**

3 minutes, mov

Fontclip.mov

[www.marksimonson.com](http://www.marksimonson.com) | University of Reading

**Overview**

First broadcast in May 2006 on the popular CBS Sunday Morning television show. Introduction to the world of type, interviewing Stephen Heller and Jonathan Hoefler. Includes a brief shot of making up a page of type in facsimile of the Gutenberg bible cast in solid blocks.

## X4 Individual typefaces

### X4.1 *The creation of a printing type from the design to the print by Frederic W. Goudy*

(c.1935)

11 minutes

Director: Maurice Kellerman

Producer: Adolph Zukor

RBS v5.14 | University of Reading |

[www.typeculture.com](http://www.typeculture.com)

#### Overview

Goudy at work in his studio/workshop. Shows Goudy producing a cap Q for his Saks typeface from the original drawing to proofing on a hand press. An interesting look at type design and production in the first half of the twentieth century.

#### Summary

- Goudy entering his studio/workshop, The Brook, at Deepdene.
- beginning the drawings for a new type – a capital Q for Goudy's Saks typeface
- tracing the drawing onto thick paper
- cutting out the traced letter which is mounted on another sheet of drawing board to form a sunken pattern
- tracing the pattern with a pantograph to produce a version in metal
- tracing the metal character with a pantograph to cut a matrix
- casting from the Saks Q matrix on a Monotype caster
- taking a proof on a hand press
- a specimen of types designed by Goudy (including one not by him!)

## Y2 Signs & symbols

### Y2.1 Braille centenary (16/06/1952)

2 minutes, b&w, wmv  
12\_38.wmv  
www.britishpathe.com

#### Overview

News item celebrating the centenary of Louis Braille's invention. Most of the film is taken up with shots of Braille being read and a speech by the Duke of Edinburgh. Setting and 'printing' of Braille are seen very briefly but not in any detail.

### Y2.2 Pathway into light (1952)

18 minutes, b&w, 35mm  
Director: Terry Ashwood  
Producer: Howard Thomas  
British Film Institute

#### Overview

Promotional film for the National Institute for the Blind celebrating the centenary of Louis Braille.

#### Summary

The story of Braille

- 6:05 Examples of embossed type
- Braille being punched by hand and by machine
  - rotary machine
  - Braille detector scanning unit
  - Braille printing press
  - the work of Sunshine Homes

### Y2.3 Three days (1948)

6 minutes, b&w, 35mm  
British Film Institute

#### Overview

Promotional film by John Mills for the National Institute for the Blind about the work of specialist schools for blind children. Mills talks about his own experience of blindness (he got snow blindness and had to stay in room for three days with patches over eyes after shooting scenes for *Scott of the Antarctic*). Includes footage of the NIB's Braille printing works

claims, from lithographic stone. Printing on sheet-fed rotary press.

### Y4.2 Sharp as a tack: music engraving, an art and a craft (1997)

8 minutes, wmv  
www.henle.de | University of Reading

#### Overview

Short explanation of how sheet music is produced using punches and hand-engraving. Includes excellent footage of the engraver at work. RBS also has a VHS film called *Sharp as a tack: the Henle music engraving process* (RBS v6.24) which may be the same film.

#### Summary

- boxes full of punches
- lines of staves cut with a five pronged rule
- sketching layout with a steel nib
- punching music notation onto plate with individual punches
- engraving vertical lines freehand
- making corrections
- proofing the plate (a 'green offprint')

## Y4 Music printing & notation

### Y4.1 Notes on music (28/12/1936)

2 minutes, b&w, wmv  
1144\_01.wmv  
www.britishpathe.com

#### Overview

Engraving sheet music: team of engravers and tools; staves and ledger lines ruled onto plate (zinc or pewter) checking that lines are equidistant and parallel; bar lines added notes struck into plate with steel punches; slurs or binds cut freehand. Plate inked – printed on a lithographic press but not, as the film



## ***Children's collection***

**Z1 Children printing**

## CHILDREN'S COLLECTION

### Children printing

#### Z1.1 *Boys will be – Editors* (24/02/1936)

2 minutes, b&w, wmv  
1128\_19.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

##### Overview

Handsetting type, inking and printing on a tiny homemade press. Rotary press printing newspapers.

#### Z1.2 *Boy editor* (03/04/1961)

3 minutes, wmv  
137\_04.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

##### Overview

14-year old Winford Grant producing his newspaper, the *Billericay Observer*, using a Roneo manual printing machine.

#### Z1.3 *School bank* (27/01/1966)

2 minutes, wmv  
349\_08.wmv  
[www.britishpathe.com](http://www.britishpathe.com)

##### Overview

A school in Longfield, Kent which has its own bank. Shows printing cheques on a vertical letterpress machine.

#### Z1.4 *Nicky's newspaper* (10/01/1938)

1 minute, wmv  
1162\_19.wmv, b&w  
[www.britishpathe.com](http://www.britishpathe.com)

##### Overview

A children's newspaper in Washington. Brief shot of the 'press room'.

#### Z1.5 *School in Poland* (1947)

3 minutes  
2166\_13.wmv, b&w, mute, wmv  
[www.britishpathe.com](http://www.britishpathe.com)

##### Overview

Story about children going to school in Poland. Shows books (presumably school text books) being printing on a flat-bed cylinder press, trimmed, and packaged.· tracing the drawing onto thick paper  
· cutting out the traced letter which is mounted on another sheet of drawing board to form a sunken pattern  
· tracing the pattern with a pantograph to produce a version in metal  
· tracing the metal character with a pantograph to cut a matrix

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